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ABSTRACT

This action research project implemented and evaluated a method to improve student motivation and academic achievement. The targeted population consisted of seventh and eighth graders from a middle school in a small midwestern community. Motivational problems were documented by means of academic grades, homework contract referrals to the administration, student and parent surveys, and teacher observation. The intervention was comprised of: (1) improving content relevance in seventh grade math, language arts, and science classes and in eighth grade algebra classes by using the theory of multiple intelligences to develop learning activities incorporated 2 to 3 times per week; and (2) teaching goal-setting processes through 2 hours of direct instruction during advisor/advisee sessions for seventh graders and during algebra class for eighth graders. Students set academic goals and evaluated their progress toward their goals. Post-intervention data gathered through parent and student surveys, student interviews, assignment records, teacher observation and anecdotal records, and student points indicated that: lessons that included a greater variety of multiple intelligences produced a higher level of intrinsic motivation among most students, the transfer of learning was most effective when used for short-term goals, goal setting was beneficial to students, graphing their progress enhanced students' desire to improve their grades, and students worked to earn extra credit points offered. However, there was a downward shift in students' opinion of the importance of homework and the amount of time devoted to it. (Appended are data collection materials, compiled raw data, and sample lesson plans. Contains 31 references.) (KB)

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ADDRESSING THE LACK OF MOTIVATION IN THE MIDDLE SCHOOL SETTING

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ABSTRACT

This report describes a method to improve student motivation and academic underachievement. The targeted population consists of middle school students in a small middle class midwestern community which is in close proximity to a large midwestern city. The problems of motivation were documented by academic grades, homework contract referrals to the administration, and teacher observation.

Analysis of probable cause data revealed that students lack goal setting skills, students desire autonomy, there is an over use of extrinsic rewards, transition to the middle school is difficult, and students lack academic self-concept. Reviews of curricula content and instructional strategies revealed a need to address relevance, and student interests and concerns, in order to increase transfer.

A review of solution strategies suggested by knowledgeable others, combined with analysis of the problem setting, resulted in the selection of two major categories of intervention: improving content relevance by employing the theory of multiple intelligences and teaching goal setting processes.

Post intervention data indicated lessons that included a greater variety of multiple intelligences produced a higher level of intrinsic motivation among most students, the transfer of learning was most effective when used for short-term goals, goal setting was beneficial to students, visualization of graphing enhanced the students' desire to improve their grades, and students worked to earn extra credit points offered.

CHAPTER 1

PROBLEM STATEMENT AND CONTEXT

General Statement of the Problem

The students of the targeted middle school exhibit a lack of motivation which causes academic underachievement. Evidence for the existence of the problem includes academic grades, homework contract referrals to the administration, and teacher observations.

Immediate Problem Setting

The following information about the targeted school was obtained from the 1995 School Report Card published by the state with data analyzed for each school district.

The targeted school is one of four buildings comprising a unit district. These four buildings include a high school (grades 9-12), a primary school (grades K-2), a primary, intermediate, and middle school (grades Pre-K, 3-8), and an elementary and middle school (grades K-8). The middle schools are comprised of seventh and eighth grades in the latter two buildings. The targeted school in this unit district is the pre-kindergarten and grades 3-8 building. The community also has two private schools (K-8) run by local churches, an alternative school (K-8), and a parochial school (K-8).

The district has 2,148 students enrolled in grades K-12. There are 113 teachers in the district with 36% being males and 64% being females. The teachers are 99.9% white and .1% Hispanic. The average class size is 18.9. The operating expenditure per pupil is $ 4,057. The total student population of the targeted school is 481 with 97.3% of the student population being white, .2% Black, 2.3% Hispanic, and .2% Asian/Pacific

Islander. The pupil-teacher ratio is 21.9 to 1. Attendance patterns indicate 96.5% of the student population attend school daily. There is an 11% student mobility rate. Student mobility is based on the number of students who enroll or leave a school during the school year. A student may be counted more than once. Chronic truancy is not a problem at all since 0% was reported.

The low income population of the targeted school is 20.2%. Low income is defined as students from families receiving public aid, living in institutions for neglected or delinquent children, being supported in foster homes with public funds, or eligible to receive free or reduced-priced lunch. The average operating expenditure per pupil of the targeted school is $4,548.

Between 1991 and 1993, the State board of Education established performance standards for reading, mathematics, writing, science, and social science. Based on their scores from these tests, the students are placed in one of three levels: does not meet state goals for learning, meets state goals, and exceeds state goals. The levels were established with the help of elementary and secondary educators from the state. Grades 3, 6, and 8 students are given tests on reading, writing, and mathematics. Science and social studies tests are given to students in grades 4 and 7. The results of those tests for the targeted school are as follows:

Table 1

Results of State Goal Testing in 1995, Grades 3, 4, 6, 7, and 8

	Reading			Mathematics			Writing		
	%DNM	%M	%EX	%DNM	%M	%EX	%DNM	%M	%EX
3rd	18	66	16	2	91	7	9	75	16
6th	19	45	36	6	69	25	3	52	45
8th	25	59	16	17	61	22	0	50	50

	Science			Social Sciences		
	%DNM	%M	%EX	%DNM	%M	%EX
4th	3	55	42	3	54	44
7th	19	49	32	9	64	27

%DNM = Does Not Meet State Goals
%M = Meets State Goals
%EX = Exceeds State Goals

This table indicates reading, math and science are areas of great concern at all grade levels; with the exception of writing - the higher the grade level the more students are unsuccessful.

The time devoted to the teaching of core subjects at the targeted school is the average number of minutes of instruction per five-day school week in each subject area divided by five. English includes all language arts courses. The number represents minutes per day each core subject is taught in grades 3, 6, and 8 at the targeted school.

Table 2

Subject Area Teaching Times (minutes) in 1995, Grades 3, 6 and 8

	Math	Science	English	Social Science
3rd	38	25	140	29
6th	45	45	120	40
8th	55	55	55	55

This table indicates that teaching time increases at the grade levels shown for math, science, and social science but teaching time decreases for English. The reason for the decrease in time for English at the eighth grade level is because literature and grammar are no longer taught as two separate subjects as in grades 3 and 6.

The targeted school has a professional staff of 22 consisting of 5 males and 17 females of which 99% are Caucasian. The average salary is $38,517. The average number of years experience is 18. Fifteen have bachelor's degrees and seven have master's degrees.

The targeted school was converted from a high school to a junior high school in 1976. In 1985 the targeted school became a 3-8 facility and in 1994 the middle school concept was adopted for grades 7-8. The building has two floors with stairs leading from one level to the next. The second floor is divided into two wings separated by the stair well. On one side are three sixth grade rooms and on the other side are the three seventh and three eighth grade rooms. There is a special education cross categorical resource room, a computer lab, a library, and a teacher's planning room located on this floor.

The first floor contains three classrooms each for grades 3, 4, and 5. There are two special education cross categorical classrooms, two life-skills special education classrooms, a speech therapy classroom, an Early Childhood Education (E.C.E.) classroom, a Higher Order Thinking Skills (H.O.T.S.) lab, a computer lab, a library, a

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cafeteria, a gymnasium, a teacher's lounge, and a central office which contains separate offices for the principal, assistant principal, and counselor.

Special education students in all grades are a part of an inclusion program that was first instituted in the 1995-96 school year.

The middle school consists of a seventh grade and an eighth grade team with four members on each team. Each team is composed of a language arts teacher, a math teacher, a science teacher, and a special education teacher or assistant. Social studies is taught by each of the language arts, math, and science teachers in each grade. An advisor/advisee program is used with the students twice a week for a total of 60 minutes. Six exploratories are taught each year to each grade level. Two classes (or one-third of the school year) are computer oriented classes at each grade level. The other classes offered are art, drama, first aid, logic, music appreciation, money management, newspaper, and career awareness. These are subject to change every year. The math program in the targeted school is a progressive program with the seventh grade being taught a transition approach to prepare the students for eighth grade algebra. Of the four teacher researchers in the targeted school, three are seventh grade teachers and one teaches eighth grade algebra. The three seventh grade teachers will collect data from one group of 25 students for math, science, and literature classes. The eighth grade teacher will collect data from a group of 25 algebra students.

The Surrounding Community

The targeted school is located in a small midwestern community located in close proximity to a large midwestern city with easy access to opportunities and services of a metropolitan area. The nearby city provides larger educational and cultural facilities, a publicly funded junior college, a professional career 2 year college, a private university, three large scale hospitals, a school of medicine, and a variety of retail services. The following information pertaining to the targeted school's community was obtained from

the 1990 census. The population is 100% urban. Urban is defined as the population of places with at least 2,500 persons in urbanized areas. The population of this community is 5,959 which consists of 2,833 males and 3,126 females. Of the 5,959 people 98.1% are white, .3% are Black, .1% are American Indian, .2% are Asian/Pacific Islander, and 1.3% are other races. There is a separate population described as Hispanic Origin. Persons of Hispanic Origin may be of any race. The population numbers 231 with 96.5% being Mexican and 3.5% being other Hispanic. The median age of the community is 35.7 years.

There are 2,300 occupied households in the community with 70.8% owned and 29.2% rented. The average household size is 2.55. There are 71.5% family households and 28.5% non family households. The average family size is 3.08. The average family income is $42,330. The family households are 82.6% married couples, 3.5% male with no spouse, and 13.9% female with no spouse. Of the family households 51.8% have children. Of the 656 non family households 28.2% are households with persons aging 65 or older. Also, 89.9% of the total number of non family households are lived in by a single person. The average household income is $36,106. There are 11.6% of the households below poverty level. In the non family households, 14.7% are below poverty level. The community median home value is $46,335.

The community appears to be stable with 92.4% living in the community for 5 years or more. There was 60.6% of the population dwelling in their original residence upon entering the community and 39.4% of the population having moved to another residence within the community.

The major language spoken in the homes is English with 88.2% of the population speaking only English, 4.2% speaking another language, and 7.6% not speaking English well or very well. The educational attainment of the 3,844 persons 25 years of age or older is 22.2% with less than a high school education, 77.8% with a high school education, 11.8% with bachelor's degrees, and 3.8% with graduate/professional degrees.

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The community has 12 major religious denominations represented by 1 Catholic and 11 Protestant churches. There are six independent associations and organizations. There are 34 clubs, groups and societies to appeal to various interests of the members of the community.

The city is governed by a mayor, elected for a four-year term, and two aldermen from each of the city's four wards.

The community is located on a river which provides much of the recreation, such as pleasure boating (with good docking facilities), fishing and wild fowl hunting, and water skiing. There are four public parks, two of which are located on the river. A recreational area outside of town offers fishing, camping, scuba diving, and daily swimming. There are two sports clubs which have fishing facilities, rifle range, a bow and arrow range, and trap shooting. A private country club offers golf, tennis, swimming, fishing, dancing, and other social events for its members. A summer recreation program includes softball for adults and baseball for youth. There is a community center transformed from a former school building which houses an indoor pool, gymnasium, exercise room, and banquet facility.

A local weekly newspaper is published for the community and surrounding area. A theater offers viewing of current movies. The community has a post office, city hall, a library, and four financial institutions.

The community has a full time and fully equipped police force consisting of nine officers and a chief of police. There is a well-trained and well-equipped fire department with 34 volunteer fire fighters. Air transportation is available to the community in a major metropolitan airport serving private and commercial airlines located 25 miles from the community. Amtrak services were once offered but are no more. A major highway runs through the community. Water transportation is available due to the community's waterfront location.

The community is attractive to industries seeking to relocate or establish branch plants in a midwestern market. Proximity to markets, good transportation for moving merchandise, and an ample labor pool are available. Industry in the community consists of 28.8% manufacturing, 25.1% trade, 27.1% services, and 2.1% public administration.

The labor force consists of persons 16 years of age or over and is 75.6% of the community population. Of the total number available in the work force, 62.1% constitute the actual labor force. Of this group 95.5% are employed and 4.5% are unemployed.

The occupations for those 16 years of age or older in the community are 24% managerial/professional, 4.3% technical, 25.1% sales/administrative support, 15% service, and 22.5% operator laborer.

Local industries and businesses provide jobs but most travel to a metropolitan area for employment. The average travel time to work is 15.9 minutes with 83.3% of the work force driving alone, 9.7% carpooling, and .3% using public transportation.

A very large machine-based industry is the major employer of much of the labor force working outside of the community. Many of these workers recently returned to work after being on strike for a little over one year.

The community monetarily supports a program incorporated in the two middle schools entitled Rewarding Achievement and Progress Program (R.A.P.P.) It is based on rewards given to students for not missing school, not receiving detentions, and for completing their assignment notebooks.

There is an issue of theft and vandalism in the community with a high incidence of crimes being committed by the youth of the community. The Drug and Alcohol Resistance Education (D.A.R.E.) program is taught by a local police officer to the sixth grade classes at both schools.

Regional and National Context of the Problem

Research confirms that educators, parents, and national commissions believe motivation of adolescents is a critical issue. It is, in fact, a problem that must be solved

(Anderman & Maehr, 1994). A number of studies have indicated that, during middle grades, students often exhibit a disturbing decline in motivation. Negative attitudes and behavioral patterns, which defeat any major investment in schooling, are common (Anderman & Maehr, 1994).

Research shows that by the middle of elementary school intrinsic motivation starts to drop off sharply around the same time that grades are becoming important as an evaluation device in their education. Kohn believes rewards and punishments are two negative ways of manipulating student behavior. He believes the root of the problem is to make the topic relevant to the students. Although Kohn does not condone the use of teacher praise as a source of student motivation, he does believe that children need unconditional support, encouragement and love (cited in Brandt, 1995).

The drop in motivation and rise in negative attitudes toward school might be disturbing at any age but are especially critical at the middle school level when lack of motivation may have effects throughout the student's life. Total alienation from school may, of course, deny the person entree to society, let alone a means of earning a living (Anderman & Maehr, 1994). For example, if a child dislikes mathematics in eighth grade it may lead the student to rule out a wide range of career choices before it is wise to do so.

Research scientist, Mac Iver, and psychology professor, Reuman (1993-94), wrote the following:

> American middle and high school students readily admit they are not putting forth 100 percent effort to learn the subject matter in the courses they take and, as a result, are only working to a fraction of their potential. When asked "How much effort do you usually put forth in this (biology or social science) class?" the average high school student in one recent survey reported expending less then 70 percent effort on a scale ranging form 0 percent (I am not trying at all) to 100 percent (I am working to my highest potential). (p.24)

Edward W. Hootstein (1994) emphasizes this growing concern in this quote from his article, "Motivating Middle School Students to Learn," discussing teachers concerns about how to motivate students:

> A National Educational Longitudinal Study (Rothman, 1990) revealed that too many middle school students, in particular are bored with schoolwork. The survey of 25,000 eighth graders found that nearly 50 percent claimed they were bored in school half or most of the time. Other studies have reported that increasing numbers of students merely sit in classrooms and cut themselves off from the flow of information (Clifford, 1990; Cross, 1990; Goodland, 1984; Larson & Richards, 1991).
>
> Teachers might expect boredom to be an increasing problem during the middle school years because adolescence is a time when lack of motivation becomes an increasing problem (Eccles & Midgley, 1990). Students are often preoccupied with thoughts about personal growth and peer relations. One possible explanation for students' apathy at the middle school level is that they perceive little connection between school learning and their lives outside the classroom; they believe that the subject matter lacks relevance. (VanSickle, 1990) (p.31)

Success, while highly valued in our society, can be more or less motivational. Supporting research states that teachers and students agreed that work which actively engaged the respondents was what stimulated their curiosity, creativity, and relationship with others. The respondents hated activities where work was repetitive, required little thought, and/or was forced on them (Strong et al., 1995). Students may avoid challenging tasks and give up in the face of difficulty when using ability goals. The definition of learning goals defines success in terms of developing skills, expanding knowledge, and gaining understanding. When you are able to do something you couldn't do before you have met success (Collopy & Green, 1995).

In conclusion, according to Kohn (as cited in Brandt, 1995), "The truth is that there are qualitatively different kinds of motivation. We need to stop asking "How motivated are my students?" and start asking "How are my students motivated?"

CHAPTER 2

PROBLEM DOCUMENTATION

Problem Evidence

In order to document evidence of inadequate motivation among middle school students, the researchers used student surveys (Appendix D), parent surveys (Appendix B), and student interviews (Appendix F) for assessment purposes. Letters of permission were sent home to all parents of middle school students. Permission was obtained in order for a student to participate in the survey process. Surveys were distributed, completed and analyzed. Twelve students were randomly selected to be interviewed. A non-researcher was selected and trained to conduct interviews in order to maintain consistency in the interviewing process and to provide students with a more pressure-free environment. The results of the student survey regarding students' view of homework are shown in Figures 1 and 2 (See questions 1 and 3, Appendix D):

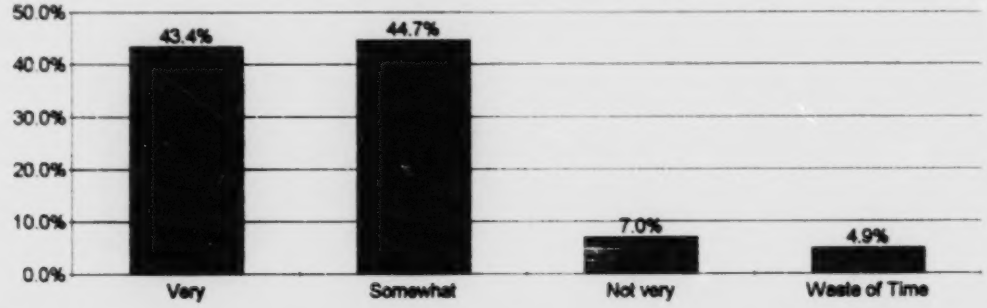

Figure 1. Percentage of Middle School students responding to the categories according to their views of the importance of homework.

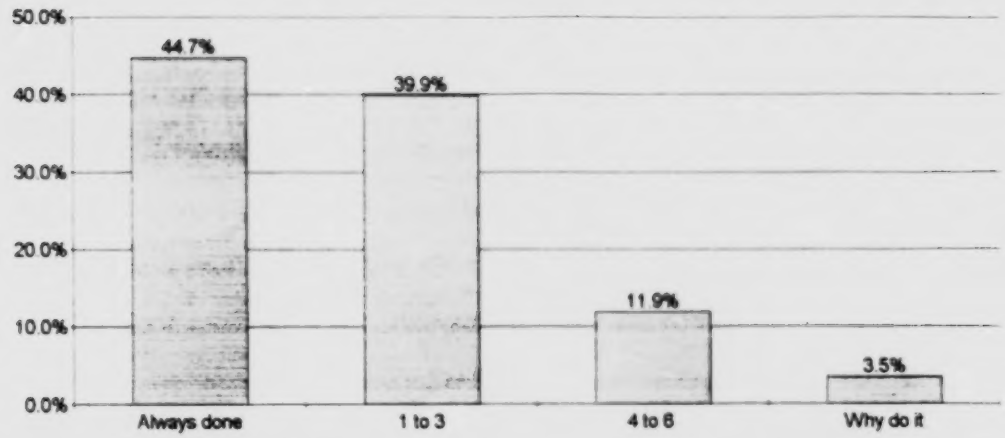

Figure 2. Percentage of Middle School students responding to categories according to their views of the number of incomplete assignments during a 9 weeks grading period.

The information from the graphs indicates the importance of homework and the completion of assignments is very closely related. Student who feel homework is not very important or a waste of time have an increased number of unfinished assignments. Close to 90% of the students surveyed felt homework was very important or somewhat important yet only 45% always turn in their homework assignments.

The results of the student survey regarding middle school students time devoted to homework and the students attitude toward detentions are shown in Figures 3 and 4 (See questions 2 and 4 Appendix D):

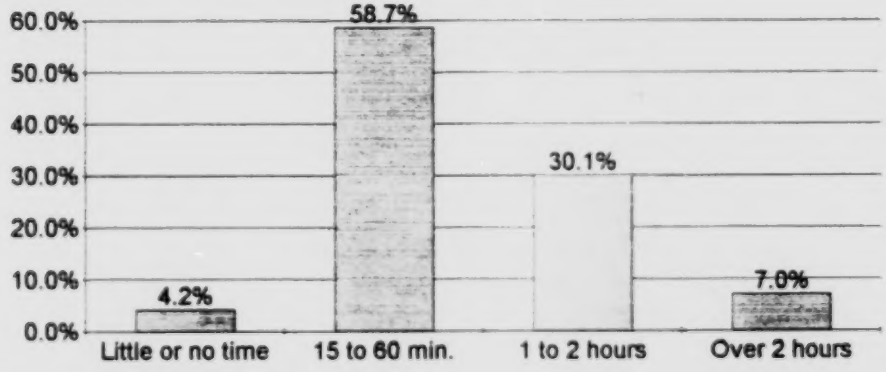

Figure 3. Percentage of Middle School students responding to the categories according to the amount of time spent on homework each night.

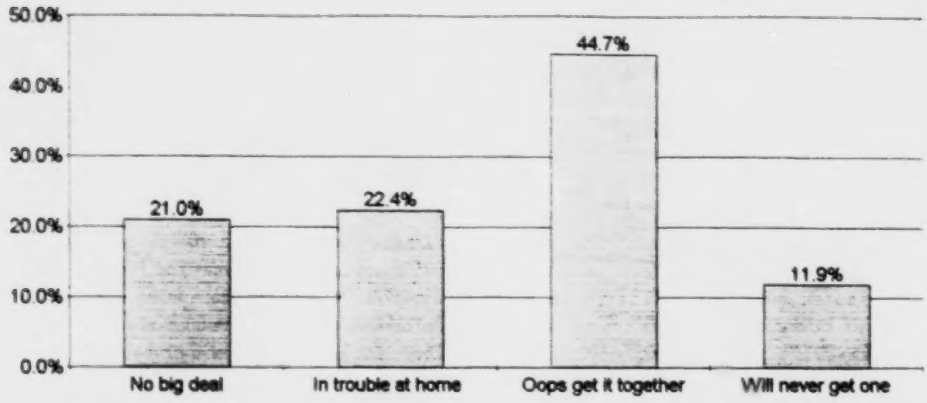

Figure 4. Percentage of Middle School students responding to the categories according to how relevant detentions are to deterring incomplete homework.

About three-fifths of the students spend 15 - 60 minutes on homework each night. A little over one-third of the students spend a considerable amount of time, over one hour, on homework each night. Nearly half of the respondents will react to a consequence received (detention) for incomplete work. About one-third of the students surveyed would complete work to avoid the consequence (detention) or fear of parental reaction. The 4.2% of the students who seldom or never devote time to doing homework would be part of the 21% of the respondents who feel that detentions are "no big deal." The other 17% are not deterred by the threat of receiving a detention.

Figures 5, 6, and 7 show the results of the middle school students' perceptions of the classroom environment in regards to class participation, learning preference, and student preference in completing assignments. (See questions 5, 6, and 7 Appendix D)

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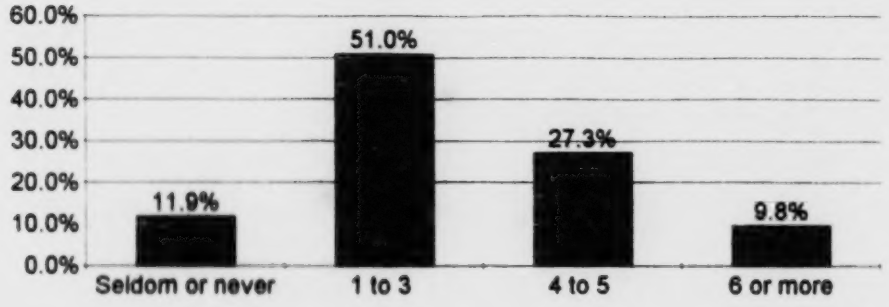

Figure 5. Middle School students' perceptions of the number of times they participate in class per period, percentage responding in each category.

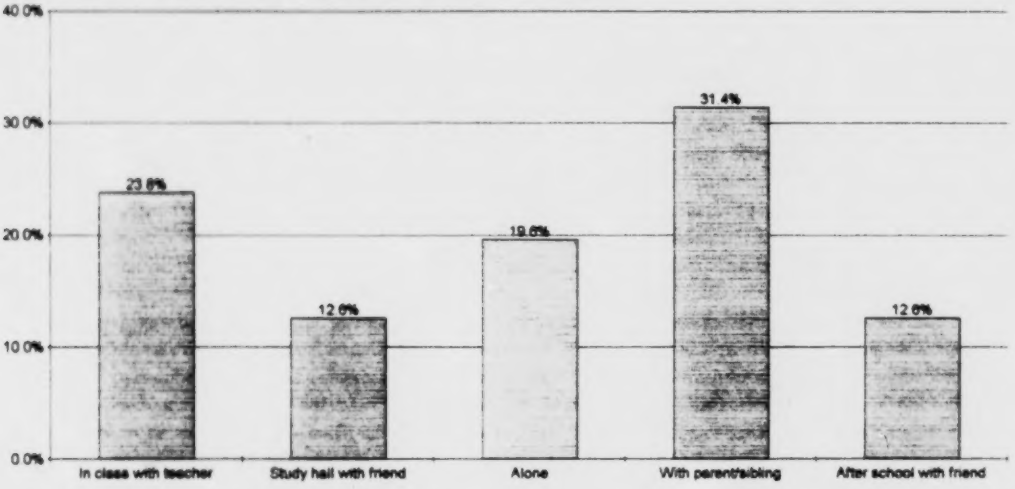

Figure 6. Percentage of Middle School students responding to the categories according to their learning preferences.

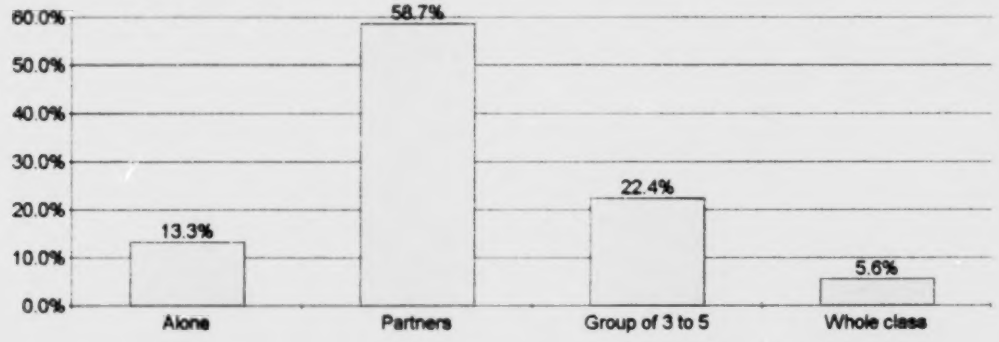

Figure 7. Assignment completion structure preferred by Middle School students; percentage responding in each category.

About half of the students participate one to three times in class discussion per class. The number of students who participate 6 or more times is about the same as the number of students who seldom or never participate.

About one-third of the students prefer to study at home with a parent, brother, or sister. About one-fourth prefer to do their work during class with the teacher present to answer questions. The number of students who prefer to do homework with a friend either during a study hall or after school was about the same.

To complete their assignments almost three-fifths of the students prefer to work with a partner which corresponds to their learning preference of working with parents, siblings, or friends. The least favorite way to complete assignments is the whole class working together.

Even though about one-fifth of the students enjoy working by themselves, only about one-tenth of the students prefer to complete their assignments alone. These choices seem to contradict each other.

Figures 8 and 9 show the results of middle school students' preference for completing school work and assignment preferences. (See questions 8, 9, and 10 Appendix D)

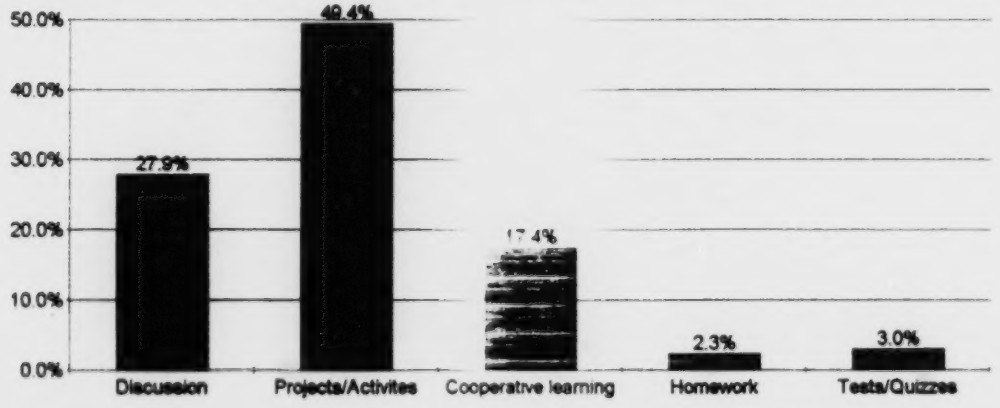

Figure 8. Types of schoolwork preferred by Middle School students; percentage responding in each category.

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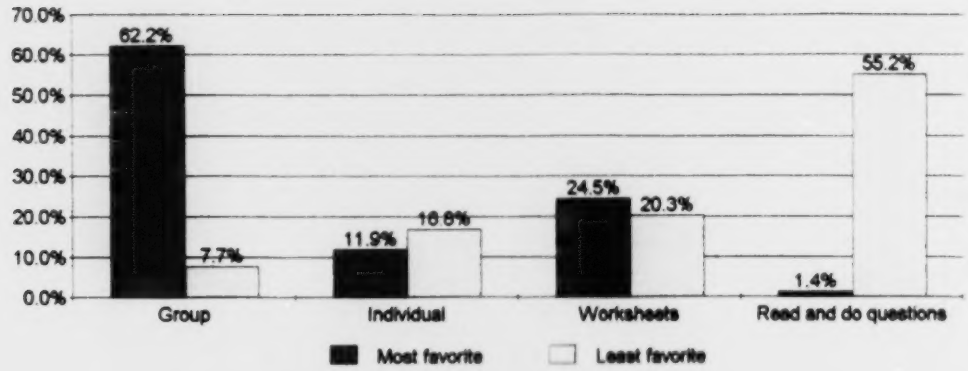

Figure 9. Most and least favorite types of assignments chosen by Middle School students, percentage responding in each category.

About one-half of the students prefer to do projects and activities for assigned school work. About three-fifths of the students like to do assignments with a group. Over one-half of the students dislike reading and answering questions as an assignment.

Less than 5% of the students preferred homework or tests/quizzes which would require working individually. This corresponds to the assignment preference of reading and answering questions. About the same number of students prefer to do worksheets as the number of students whose least favorite assignment is to complete a worksheet.

About one-fifth of the students prefer cooperative learning in the classroom. Nearly three-fifths reported working in groups as their preference in completing assignments. The researchers question the students' understanding of the term "cooperative learning" when making their choice on question 8.

The number of students whose assignment preference is to complete the assignment individually and the number of students whose least favorite preference is to complete the assignment is very close.

Students were asked to rank their after school activities (See question 11 Appendix D). Eight choices were given. The top four selected by the students were as

follows: eating a snack, doing homework, watching television, and participating in extracurricular activities. Completing homework was second to eating a snack to show students do place an importance on homework. Extracurricular activities are important to middle school students yet in the parent surveys and student interviews there was a concern for over involvement.

Out of the 151 parents/guardians of seventh and eighth grade students, 95 responded and 77 wrote out comments on their feelings about the role of homework in their child's learning process. The results of the parent/guardian survey are shown in Figure 10 (See question 4, Appendix B), Figure 11 (See question 1, Appendix B), and Figure 12 (See question 3, Appendix B).

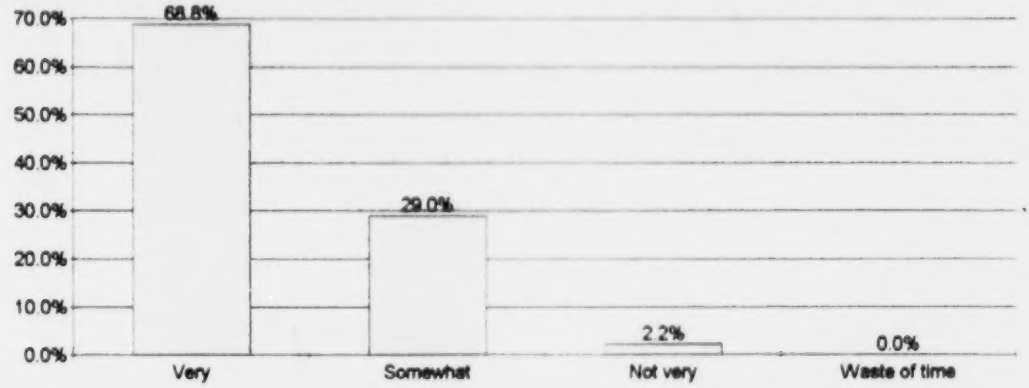

Figure 10. Parents' views of the importance of homework; percentage responding in each category.

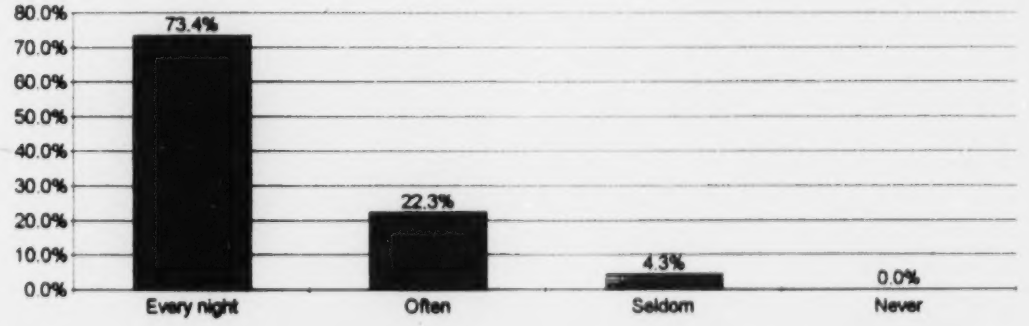

Figure 11. Percentage of parents responding to the categories according to their level of involvement in checking homework for completion.

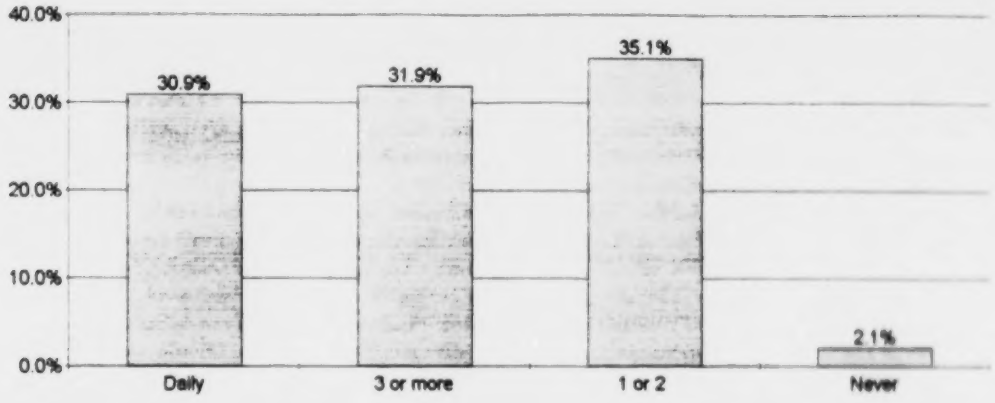

Figure 12. Active participation of parents with homework in a weeks time; percentage responding in each category.

Figure 10 shows that more than two-thirds of parents feel homework is very important. almost three-fourths of these parents are checking for homework completion every night. Figure 11 shows only one-third of these parents are actively participating with their child's homework each night. Figure 12 indicates almost 7 out of 10 parents/guardians do actively participate with their child in completing homework more that one time per week. Only about two percent stated that they never help students with their homework. The relationship on the graphs suggest that parents expect their children to do homework, but on a more independent basis.

Probable Causes

During the first week of the 1996-97 school year, parents of the students in the entire middle school received a survey to complete, a permission slip to sign and return to the researchers, and sample copies of the survey and interview questions which the researchers would be administering to their child. One hundred fifty-one surveys were sent home with the middle school students to give to their parents. Ninety-five of the surveys were returned with permission slips signed and parent surveys completed. The last question on the survey requested comments from the parent about lack of motivation

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(Appendix B). Seventy-seven of the 95 surveys returned had responses. The major causes for lack of motivation in students as cited on the survey were as follows: (a) presentation of material was not interesting to the student, (b) lack of parental involvement with their child and school, (c) lack of parental discipline, (d) the need for teachers to be more helpful and encouraging, (e) student involved in too many outside activities, (f) too much homework was assigned by teachers.

During the first grading period researchers designed a student interview questionnaire pertaining to strengths and weaknesses in academic learning methods and possible factors influencing student motivation. Twelve students were chosen at random and a teacher assistant was selected and instructed by the researchers to conduct the interviews. The interviews were tape recorded for later analysis. When asked about possible reasons the interviewed students might not complete their work assigned to them, most of the interviewees claimed that they always do their work, however, some admitted often forgetting, choosing not to, or not caring about completing work.

Another interview question posed asked for reasons other middle school students don't complete work. Responses suggested problems with lack of time due to over involvement in extracurricular activities, priority in other peer or social interests at this age level, laziness, and/or simply not caring.

When interviewees were asked for causes for lack of motivation which teacher actions influence, they stressed a need for more student relevant topics taught, more hands-on projects and activities, and more extrinsic rewards. A correlation exists between parental/guardian responses and student responses in the surveys and interviews.

The researchers have inferred from the results of these surveys and interviews that middle school students at the targeted school lack motivation due to the following: (a) lack of student relevance in teacher presented material, (b) over involvement in extracurricular activities, and (c) too much reliance on extrinsic rewards rather than intrinsic motivation.

Figure 13 (See question 2, Appendix B) shows the amount of time parents feel they spend discussing academic topics with their children on average per week:

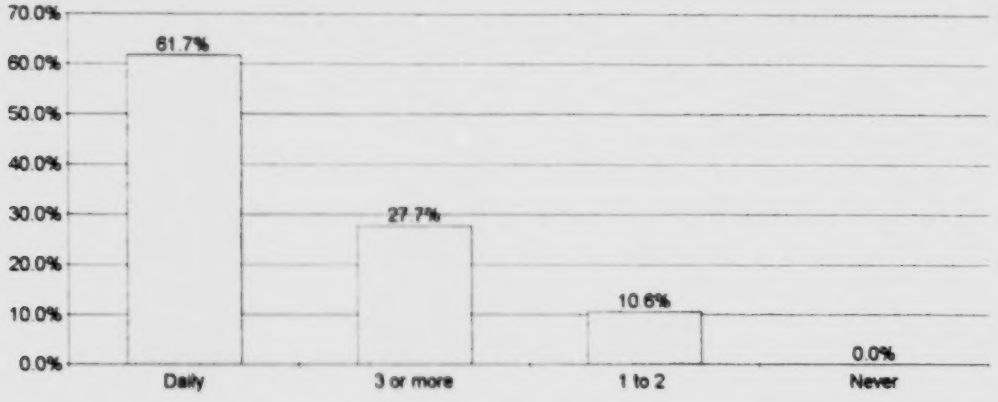

Figure 13. The amount of communication about school between Middle School students and parents per week; percentage of responses to the categories by the parents

Figure 13 shows that sixty-two percent of middle school students communicate to parents/guardians about academic activities in which they are participating. There were no parents that stated that their child never told them about school activities.

The researchers have concluded that there probably is a direct correlation between the parents who were responsible enough to answer the survey and return it and the high percentages of these parents reporting to communicate frequently with their middle school child.

The literature suggests several underlying causes for lack of motivation in the middle school setting. When the student sees little or no relevance in school work there is little desire to complete the work with a negative attitude toward school as a possible result (Anderman & Maehr,1994; Cohen & Bettencourt, 1991). Students who believe they have little input over academic outcomes show little enthusiasm for learning (Fulk & Montgomer-Grymes, 1994). Students often equate hard work with satisfaction and success. Students are more likely to become more engaged when they feel they are doing important work. Skill and drill learning, repetitive work with little thought, without

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practical application is a turn-off to students (Wasserstein, 1995). Students who have the inability to stay focused, tend to become easily distracted or stop doing the task often become disruptive or they daydream, doodle, or stare out the window (Ornstein, 1994).

In many middle schools, environments are characterized by few opportunities for students to make important decisions, too many rules and harsher discipline, poor student-teacher relationships, grouping by ability, and stricter practices than the elementary school years. Early adolescents are best nurtured by a strong sense of autonomy, independence, self-determination, and social interaction. Therefore, what middle schools provide may not meet the psychological needs of the students (Anderman & Maehr, 1994).

Eccles and her colleagues conducted a study in which they found that when students have fewer chances to participate in decision making, but have a great desire for the opportunity to make choices, decline in the interest of the subject area being studied occurs, thus resulting in lack of engagement and motivation (Eccles, Wigfield, Midgley, Reuman, MacIver, & Feldlaufer, 1993).

The perceived purpose of doing something is a major factor in determining the students' level and quality of engagement in an activity (Anderman &Maehr, 1994). If the students have a loss of self-confidence and low self-esteem, their willingness to set and attain goals is affected. Therefore, these students who have not experienced success perceive that setting goals is of no great value (Martino, 1993).

Students at the middle school level must also deal with many of the negative consequences related to school transition. Studies have shown that some early adolescents display the greatest changes in their beliefs and values regarding math and English between sixth and seventh grades when these students moved from elementary school to middle school. These studies showed that students' beliefs in English ability decrease between the spring of sixth-grade year and the fall of seventh-grade year. Students' beliefs in math ability were similar in fall and spring of sixth-grade, but decreased

in the fall of the seventh-grade year. The results of the studies showed that there was a link between motivation declines and middle school transition (Eccles, et al. 1993).

As children move from childhood and into early adolescence the concept of "possible selves" serve as a link between cognition and motivation. The concept of "possible selves" represents what an individual would like to become, could become, or is afraid of becoming. Possible selves have a powerful influence on choices a student makes and the strategies a student uses. Students who experience school-related failure during adolescence may define life goals and tasks in terms of failure (Anderman & Maehr, 1994).

Schools often undermine the self-esteem of students through rules, disapproval, and negative experiences. Students often react to these negative situations by using protective measures to disengage themselves form academic work such as showing little effort, not using their study time, or denying the need to study at all (Orstein, 1995).

Students who classify themselves as failures transfer the failure expectation from one academic situation to another. Achievement and self-concept in the classroom are related to one another: one increases or decreases in direct relation to the other. The behavior of students who find school not meaningful often perceive the school as not valuing their efforts and achievements, and as a result, seek alternative methods of establishing their self-esteem. Students who are accustomed to repeated failure often set goals for themselves that are ridiculously high or low (Cohen & deBettencourt, 1991). This action tends to keep the learner in a cycle of failure and affects self-concept.

Intrinsic motivation is when a learner completes a task "for its own sake" rather that to earn an external reward or avoid punishment. Intrinsic motivation is desirable because it increases the students' engagement in the task and it increases the effectiveness of learning (Fulk & Montgomery-Grymes, 1994). Extrinsic motivation is an external reward or motivator for a task at hand. Alfie Kohn believes that rewards and punishments in the classroom manipulate students' behavior. Kohn believes that the more you reward

someone for doing something, the lower the quality of work accomplished and the less interest the student will have in whatever the student was rewarded to do. Kohn (cited in Brandt, 1995) believes that reliance on external motivators fails to produce any long-lasting commitment to learning.

The researchers determined the causes cited above - lack of content relevance, lack of study skills by the students, lack of goal setting by the students, low self-esteem, and receiving too many extrinsic rewards - were the causes of lack of motivation in the students at their school. A plan was devised and implemented by the researchers to address these areas.

CHAPTER 3

THE SOLUTION STRATEGY

Literature Review

The researchers have reviewed a variety of literature for possible solutions for the lack of student motivation. The solutions are arranged in the following categories: parental involvement, cooperative learning, multiple intelligences, student choices, student efficacy, goal setting, and subject matter relevance.

Parental involvement has been documented by Wang, Haertal, and Walberg (December 1993/January 1994) as being one of the most important out-of-school influences on student motivation. In their analysis of research, which covers a 50-year time span, they found direct and indirect influences that affect student learning. They arranged this influential data into twenty-eight categories. "The category home environment/parental support was among the most influential of the 28 categories; this was described as 'ensuring completion of homework.' The benefits of family involvement in improving student academic performance have been well documented."

There are many views on the use of cooperative learning to increase student performance in the classroom. Most researchers support the use of cooperative learning because all students can benefit, even if the student is gifted, low-achieving, or a student with special needs (Augustine, Gruber, & Hanson, Dec. 1989/ Jan. 1990). Cooperative learning methods provide students with opportunities for social interaction, hands-on experience, and physical movement which many teachers believe can be a motivational strategy (Hootstein 1994, March/April). Using cooperative learning, as stated by Johnson

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and Johnson (1993), increases student achievement, develops positive relationships among students, and improves psychological well-being.

Kohn, when interviewed by Brandt (1995), views cooperative learning as an aid in building a sense of community. Cooperative learning should help students feel port of a safe environment where they feel free to ask for help and care about one another.

Students need to realize that cooperative learning will be used in many real life situations. Johnson and Johnson (Dec. 1989/Jan. 1990) stated:

> In the real world of work, the heart of most jobs - especially higher-paying, more interesting jobs - is getting others to cooperate, leading others, coping with complex problems of power and influence, and helping solve people's problems in work together. (p.32)

Slavin (Dec. 1989/Jan. 1990) states, after 20 years of research, that the areas of agreement about cooperative learning practices far outweigh the areas of disagreement. One area of agreement is the basic consensus that at the elementary and middle school levels, the use of cooperative learning practices that initiate group goals and individual accountability increases student learning. Another area is shown by the improvement of inter-group relationships. The third area notes the acceptance of different races and the mainstreamed students. A fourth area marks an improvement in self-esteem.

The four areas of controversy are: (a) whether cooperative learning is effective at all grade levels, (b) whether cooperative learning is effective at the college level, (c) whether cooperative learning is appropriate for higher order learning, (d) whether there is sufficient evidence to support that cooperative learning produces positive outcomes.

The multiple intelligence theory takes into account that each student is unique and that teachers need to provide opportunities to stimulate the ways in which students learn best (Fagella & Horowitz, 1990).

Gardner (1995) believes schools try to cover too much material resulting in superficial understanding of the material. He believes more time needs to be spent on

teaching the concepts and approaching the topic in a variety of ways. By approaching the topic in this manner he believes three outcomes will result: (a) more children will be reached, (b) students secure a sense of what it is like to be an expert when they discover they themselves are capable of more than one method of achieving an outcome, and (c) students can display their understanding in ways that are comfortable for them and accessible to others.

"By implementing multiple intelligences theory, motivation is the most important by-product of the varied curriculum. When students are encouraged to expand their strengths, they are more likely to enjoy their work and to pursue increased competence with confidence" (Chapman, 1993, p.18). This can also be accomplished by restructuring lessons and units to target the different intelligences, integrating the curriculum around the multiple intelligences, and responding to individual needs.

Lazear (1991) believes that if one has learned how to use and appreciate the full spectrum of one's intellectual capacities, there will be increased work satisfaction, effectiveness, and creativity due to the ability to process information and engage in problem solving on many more levels simultaneously.

Many researchers believe that when students are given choices they become actively engaged in their work. Four goals drive students when they are engaged in their work: (a) success (the need for mastery), (b) curiosity (the need for understanding), (c) originality (the need for self-expression), and (d) relationships (the need for involvement of others) (Strong et al., 1995). Providing students with choices in academic situations can increase their sense of control which in turn affects their motivation (Tjeerdsma, 1995). Students love to pursue their own areas of interest and create their own solutions to relevant, open-ended problems. This causes students to feel good about themselves thus motivating them to learn (Wasserstein, 1995).

Student choice does not always mean that the students determine exactly what they will earn or how. Types of choices may range from simple, such as choosing their

own cooperative group, to more complex, such as assignment sequencing and accompanying activities (Tjeerdsma, 1995; Fulk & Montgomery-Grymes, 1994).

Many reluctant learners confuse academic success or failure with their own effort, thus they think less of themselves when they do not achieve at a high level. Repeated achievement breeds achievement. Repeated failure breeds failure (Cohen and de Bettencourt, 1991; Ornstein, 1995). Teachers need to be sure that: (a) tasks are suitable for students' abilities, (b) activities are planned to reduce anxiety, (c) activities are built on students' strengths, and (d) support and encouragement are used to work on students' weaknesses (Ornstein, 1995).

Pardes (1994) feels giving students a say in decision making places them in a learning circle. Students need to be provided with a choice for learning before they actually begin the task. During the task they can choose different strategies. After the task is completed, the students can evaluate their performance. These three steps describe the learning circle. By taking control of their own learning, students learn to motivate themselves.

Students need to realize that if they believe they can succeed, then they can. Success means the student should be able to do something he/she could not do before. When students use learning goals, they choose to perform more challenging tasks, persist longer, are less affected by mistakes and failures, and use higher level thinking skills to achieve their goals (Collopy & Green, 1995; Anderman & Maehr, 1994).

The improvement point system that will be implemented in this study and described later in this chapter will focus on goal setting, a quantitative method for measuring goal attainment. This system is based on MacIver and Reuman's (1993/1994) theory that individuals will truly do their best if challenging, quantitative goals are set that demand the maximum use of students' skills and abilities.

According to Anderman and Maehr (1994), there are two types of goals. Task-focused goals focus on thinking about how newly learned material related to previous

knowledge and attempting to understand complex relationships. Ability-focused goals tend to use surface-level strategies, such as memorization of facts, and the student tends to be constantly asking the teacher for help when faced with difficult academic tasks. Teachers should have the students set short term realistic goals. When setting these goals, emphasis should be placed on the need for planning, practice and persistence (Ornstein, 1995).

School climate can influence the types of goals that students adopt. Research suggests that schools should de-emphasize grade attainment and more emphasis should placed on student-centered outcomes (Anderman & Maehr, 1994).

Another method that will be implemented in this study for student involvement in goal setting, is to have students self-record and graph their progress toward goal-attainment (Fulk & Montgomery-Grymes, 1994).

To become an effective student, the topic studied needs to be interesting. Students want and are energized by work that stimulates their curiosity and desire for understanding. Students are motivated when they believe the tasks they perform are related to their personal needs, interests, and goals (Strong et al. 1995; Ornstein, 1995; The Perfect Form Co., 1982).

Educators concerned with relevance must come to see learning as a political act, one that requires reasoning within diverse and opposing points of view, reflective thought, theory, practice, transformation, interdisciplinary transfer of learning, and personal and social commitment (Weil, 1993, p.34).

Students need to be aware of the transfer of material from one subject to another and to real life situations. Fogarty (1992) also believes that the purpose of the thinking classroom is to extend learning from old content to new and to lead students toward relevant transfer across the curriculum and into real life situations.

To improve relevance four conditions need to be established: (a) Teachers should clearly state the purpose and importance of the learning activity along with criteria

expected for success, (b) Teachers should emphasize the value of the activity and let the students know that future success in a real work setting may be dependent on their ability to use the skills which are going to be taught, (c) Teachers should show students the skills needed to be successful drawing on their prior knowledge and adding new knowledge, (d) Teachers should allow students to use their imaginations and encourage teamwork and cooperation (Strong et al., 1995; Fulk and Montgomery-Grymes, 1994; Hootstein, 1994).

The value of learning for learning's sake should be introduced by teachers. Teachers can show their enthusiasm from their movements, gestures, facial expression, and vocal inflection. These acts, along with energy and exuberance, can help students become excited about their own learning (Hootstein, 1994).

Teachers should model what is expected for success so that students know when they have done well and they know how to improve their work. Showing students' examples of work that illustrate high, average, and low levels of success will motivate students to increase their own ability to achieve (Strong et al. 1995).

Upon review of the literature and the researchers perceived problem in the targeted school, the research will focus on the latter two solution components of goal setting and relevance.

PROJECT OBJECTIVES & PROCESSES

I. As a result of improving content relevance, during the period of September 1996 to December 1996, the seventh and eighth grade students from the targeted classes will increase their engaged behaviors as measured by teacher journal entries, academic scores, and assignment completion rate.

In order to accomplish the project objective, the following processes are necessary:

1. Develop a series of learning activities using the multiple intelligences theory.
2. Address the intended value of lessons with emphasis on transfer.

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II. As a result of instruction in goal setting processes, during the period of September 1996 to December 1996, the seventh and eighth grade students from the targeted classes will increase academic achievement and academic self-concept, as measured by student portfolios, academic scores, and student self-evaluations.

In order to accomplish the project objective, the following processes are necessary:

1. Direct instruction on goal setting methods.
2. Create methods which involve students in the assessment process.

Project Action Plan

The following action plan was designed to increase the motivation of seventh and eighth grade students by improving content relevance and implementing instruction in goal setting processes.

The researchers designed and administered a baseline survey for parents and seventh and eighth grade students (Appendices B & D). Twelve randomly selected students from each grade level were also interviewed (Appendix F). The surveys and interviews were written in the summer of 1996. Prior to administration, letters were sent to parents to obtain permission for students to participate in the survey and interview (Appendix A). The surveys and interviews will be administered during the second week of school. The purpose of the baseline surveys and interviews is to compile data for probable cause and establish the scope of the problem. The researchers also designed and administered a postintervention survey for the seventh and eighth grade students (Appendix Q). The survey will be written in January 1997. The survey will be administered the second week of the second semester. The purpose of the survey was to provide a comparison between student views before and after the intervention and to receive student feedback on the various components of the intervention.

The yearly grade in each content area from the previous school year will be used as a base grade to incorporate an improvement point system for teacher selected assessments. The grade obtained from the report card will be converted to the following point system:

A=94; A-=90; B+=87; B=84; B-=80; C+=77; C=74; C-=70; D+=67; D=64; D-=60; F=54. For the first base score five points will be subtracted from the previous conversion. After each teacher selected assessment the students will earn improvement points based on the following table as stated by MacIver and Reumann (1993/1994).

If the Student:	You earn:
Beat your base score by more than 9 points	30 points
Beat your base score by 5 to 9 points	20 points
Score within 4 points of your base score	10 points
Get a perfect paper	30 points
Score within 5 points of a perfect paper	20 points

The improvement points after each round, which consists of at least three assessments, will be averaged and these points will be added to the student's homework points. The students will use a line graph to graph the base score and teacher selected assessments. The purpose of the line graph is to provide the students with a visual representation of their performance and will be placed in the students' portfolio (sample Graph Appendix I). Base scores will be changed after at least three assessments have been completed. To change the base score, the sum of the base score and the selected assessments will be averaged to determine a new base score for the next round.

Teacher journal entries will be made at least twice a week. These entries will include anecdotes on any of the following observations: off-task behavior, student initiated questions, class participation, incomplete and/or unsatisfactory work, outstanding student work, teaching methods that show most student engagement.

The researchers will address the intended value of the lesson with emphasis on transfer using the following four point strategy stated by Hootstein:

1) Relate the learning task to the students' needs, interests, concerns, and experiences,

2) Make explicit the intended value of learning,

3) Share and model the value of learning,

4) Encourage interests in active ways.

To improve content relevance the researchers will design lessons using the multiple intelligences theory based on analysis of surveys and interviews. The lessons will be implemented in seventh grade math, language arts, and science classes and also in an eighth grade algebra class (Appendices J, K, L, and M). The lessons will incorporate several of the intelligences each week but specific references to those intelligences will not be stated to the students. The logical/mathematical intelligence is obviously used daily in the mathematics classes. The visual/spatial intelligence is incorporated through the use of manipulatives, the overhead projector, and the blackboard to explain lessons. The interpersonal intelligence is evident when cooperative learning groups were emphasized in the classrooms. Goal setting and self-evaluation of lessons and chapters by the students reflected the intrapersonal intelligence. In science, a variety of multiple intelligences are targeted throughout each week. The logical/mathematical intelligence was an integral part of "scientific thinking" and problem solving. Illustrations and graphic organizers highlighted the visual/spatial intelligence. Almost all of the multiple intelligences with the exception of musical/rhythmic are implemented in the science labs that occur about once every 2-3 weeks. In language arts, the verbal/linguistic intelligence is used daily; however, other intelligences are implemented on a weekly basis. The interpersonal intelligence is emphasized with cooperative learning groups. The intrapersonal intelligence is exercised in individual goal setting. The visual/spatial intelligence is targeted with the use of the overhead projector and blackboard for explanation of lessons and the use of some graphic organizers. The musical/rhythmic intelligence is incorporated to introduce a few stories in literature. The logical/mathematical intelligence is used in the analysis of stories in literature.

During the first week of school the seventh grade researchers will give direct instruction on goal setting during advisor/advisee sessions. Advisor/advisee is a block of time within the middle school concept devoted to academic and non-academic concerns of middle school students. The eighth grade students will receive direct instruction during the eighth grade algebra classes. The estimated length of time for this direct instruction is four thirty minute sessions for the seventh grade and two academic periods for the eighth grade (Appendix N).

Upon completion of the goal setting instruction, the students will establish their own goals (Appendix O). These goals will be placed in their portfolios and after each round of the improvement point system the students will evaluate their progress toward their goals. Any alteration and additions can be made at this time.

The student portfolios will be used by the students to assist them in self-assessment and goal setting. The student portfolio will contain the improvement point system graph, student's reflections or journals, and samples of student work.

Methods of Assessment

In order to assess the effects of the intervention, parent and student surveys were developed and implemented. In addition, student interviews were conducted and analyzed. Student assignment records, teacher observations, teacher anecdotal records, and improvement point system data will be kept throughout the intervention.

CHAPTER 4

PROJECT RESULTS

Historical Description of the Intervention

The purpose of this project was to increase the motivation of seventh and eighth grade students. The implementation of content relevance, learning activities using the multiple intelligence theory, the use of goal setting, and the involvement of students in the assessment process through an improvement point system were selected to effect the desired change.

During the second week of the school year a student survey was administered with parental permission to seventh and eighth grade students. A parent survey was given to each student in a sealed envelope to take home. The sealed envelope contained the following: (a) parent survey (Appendix B), (b) student survey (Appendix D), (c) student interview (Appendix F), and (d) parental permission slip (Appendix A).

Twelve randomly selected students (six from each grade level) were interviewed to gather data about homework, detentions, class participation, learning preferences, and after school activities.

Two hours of direct instruction were given on goal setting (Appendix N). The original plan was to teach goal setting during the first week of school. This plan was carried out as scheduled for the eighth grade students; however, the seventh grade teachers were required by the principal to review the school handbook which postponed the instruction of goal setting until the second week of school. Upon completion of the goal setting instruction, the students were required to write their own goals in eighth

grade algebra and seventh grade math, science and language arts (Appendix P). In addition, the newly implemented school homework policy was discussed. The homework policy states that upon the third, fourth, and fifth incomplete assignment in each subject area, the student would receive a detention. For the sixth, seventh, and eighth incomplete assignment, the student would receive a short Saturday detention. The student will receive a long Saturday detention for the ninth and each subsequent incomplete assignment. Saturday detentions are held twice a month. A short Saturday lasts from 8:00 - 10:30 am and a long Saturday lasts from 8:00 am - 1:00 pm.

An improvement point system was implemented as a form of students' assessment of their performance. Within the first three weeks of school, the student's baseline score was determined using the previous year's final grade for each subject, which was then converted to a numerical value, and then graphed by the student (Appendix I). Upon completion of a round, which consisted of at least three assessments, the students would do the following: (a) calculate the average of their improvement points, (b) average the previous baseline score and all the assessments to find their new baseline score which was then graphed, and (c) assess goals and write new goals for the next round.

There was no direct instruction given to the students on multiple intelligences. The intelligences were incorporated at least two or three times a week in each classroom. For example, in the mathematics classrooms the logical/mathematical intelligence is obviously used along with visual/spacial in presenting new material to the students on the overhead projector or the chalkboard. The interpersonal intelligence is employed when students work daily in their cooperative learning groups. The use of Algeblocks in algebra and various weekly geometry related activities in seventh grade math use the above intelligences and the bodily/kinesthetic intelligence. In the science classroom, multiple intelligences are also used 2-3 times a week. The logical/mathematical intelligences is used to analyze the scientific method. Visualizations are used to enhance the lessons through illustrations, incorporating the visual/spatial intelligences. When making

observations and relating the scientific knowledge to their own level, the intrapersonal intelligences is used. During lab time students work in cooperative groups employing the interpersonal intelligence along with the intelligences previously mentioned. In language arts, verbal/linguistic is an obvious intelligence used daily in the discussion of stories and logical/mathematical to analyzing stories in literature. Cooperative learning groups use the interpersonal intelligence once or twice a week.

To make the content relevant to the students, the teachers would state the purpose of the lesson or activity and explain what criteria was needed for a grade. The teachers would tell the students how the skill taught could be used in their lives at the present and how it relates to future subjects taught. Students would discuss the use of skills taught and their application to their lives. Some topics introduced in each class have relevance to any person in everyday life, whereas, other content is relevant to occupation specific areas. For example, in mathematics, operations of integers can apply to everyone in real life who needs to balance a checkbook, plays golf (above and below par), and reads a thermometer (above and below zero). Integers are specifically used in medical, engineering, accounting, business, and statistics careers. Lessons taught in science classes on electrical circuits, switches, and batteries help students understand how appliances, lights, or radios can be turned on and off. Similar, yet more specific information is used by electricians, inventors, and electrical engineers. In language arts class, short stories and novels are analyzed for students to learn basic literary terminology and to practice reading comprehension. In everyday life they need to read magazines, newspapers and books for pleasure. Specific careers that use literature skills are journalists, historians, authors and playwrights.

The intention of the teacher journal entries was to include any of these observations: off-task behavior, student initiated questions, class participation, incomplete and/or unsatisfactory work, outstanding student work, and teaching methods that show the most student engagement. However, this proved to be somewhat unrealistic because

of time constraints. It was also difficult trying to teach effectively while recording all observations. The journal anecdotes proved to be too cumbersome. Therefore, the anecdotal notes are a general observation of weekly occurrences in the classroom.

The students were instructed in goal setting during the first week of school. Individual goals were written by each student for math, science, and language arts in seventh grade and by eighth grade algebra students (Appendix P). A new goal would be written after the completion of each round of three to four assessments. Due to the length of time needed for each round, the seventh grade math teacher was not satisfied with goal setting. Students were not achieving their goals because too much time had passed between when the goal was written and when the goal was evaluated by the student as to whether or not the goal had been achieved. The seventh grade teacher conferred with the other teachers and the agreement was made to allow the teacher to use biweekly goals with the students in seventh grade math. It was hoped improvement would be made in achieving goals.

Presentation and Analysis of Results

A postintervention survey (Appendix Q) was conducted at the conclusion of the intervention. Results (Appendix R) are shown in the following graphs pertaining to each survey question.

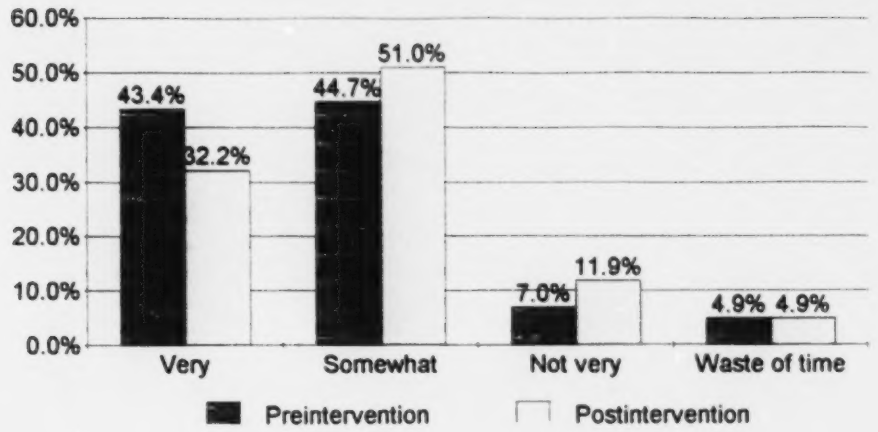

Figure 14. The pre and postintervention comparison of the percentage of Middle School students responding to the categories according to their views of the importance of homework.

The same number of students in the preintervention survey (Appendix E) and the postintervention survey thought that homework was a waste of time. At the beginning of the school year almost an equal percentage of students felt homework was very or somewhat important. In the postintervention survey there appears to be a downward shift in students' opinion of the importance of homework. Although, in both the student surveys there are still over 80% of the students who indicated homework is very or somewhat important.

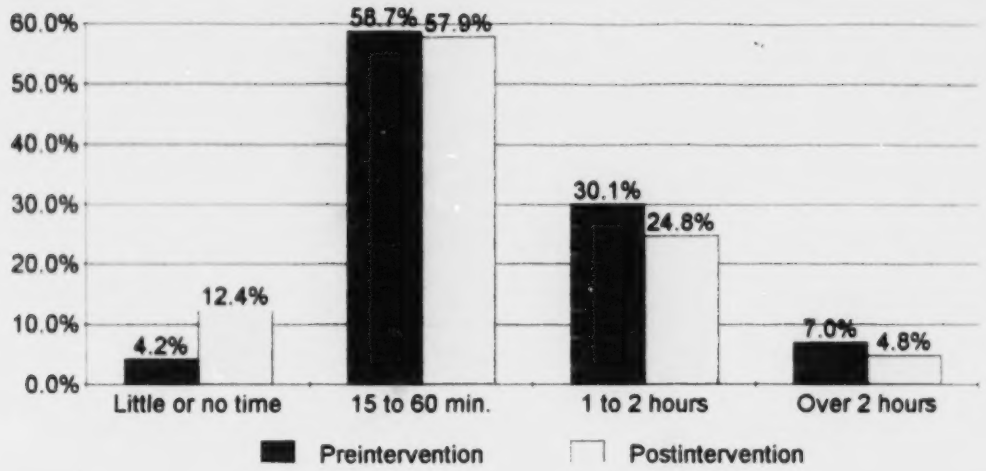

Figure 15. The pre and postintervention comparison of the percentage of Middle School students responding to the categories according to the amount of time spent on homework each night.

Almost three-fifths of the students responded in both surveys that only 15 to 60 minutes was spent on homework. Nearly 90% of all middle school students at the targeted school are spending 15 minutes or more doing homework based on the results of the postintervention survey. The downward shift in the importance of homework as noted in Figure 14 also relates to the reduction of time devoted to homework in Figure 15.

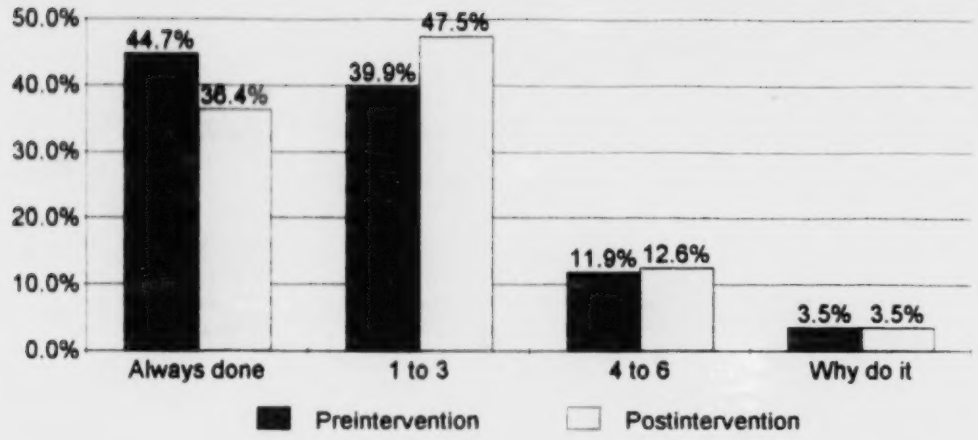

Figure 16. The pre and postintervention comparison of the percentage of Middle School students responding to categories according to their views of the number of incomplete assignments during a nine weeks grading period.

The same percentage of students still felt that homework is irrelevant. The revised homework policy for the 1996-97 school year states that each student may receive two zeros for incomplete work in each class before receiving a consequence. The third zero results in the assignment of a detention. This policy may be the reason for the greater increase in the percentage of students responding in the postintervention survey to the 1 to 3 times category. However, over 80% of the students would still complete their homework assignments on a regular basis avoiding any homework policy consequences.

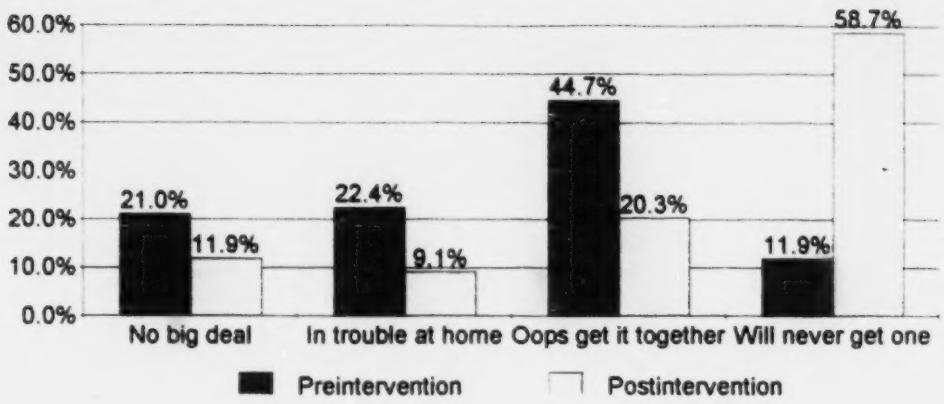

Figure 17. The pre and postintervention comparison of the percentage of Middle School students responding to the categories according to how relevant detentions are to deterring incomplete homework.

The percentage of students that were affected very little by the homework policy because their work was always dome appeared again on Figure 17 in the percentage that said they would never receive a detention.

The percentage of students saying they would never get a detention raised significantly from about 12% in the preintervention to nearly 60% in the postintervention. In the preintervention survey, the students that said they may never get a detention had not been told the homework policy. The researchers feel perhaps, after they were aware of the policy, their attitude about doing the homework may have changed at the time the postintervention survey was administered.

The decrease in the percentage of students who felt detentions were "no big deal" were not wanting to receive Saturday detentions which are part of the homework policy. Also, the decline in the first three columns may be attributed to the large increase in the fourth column.

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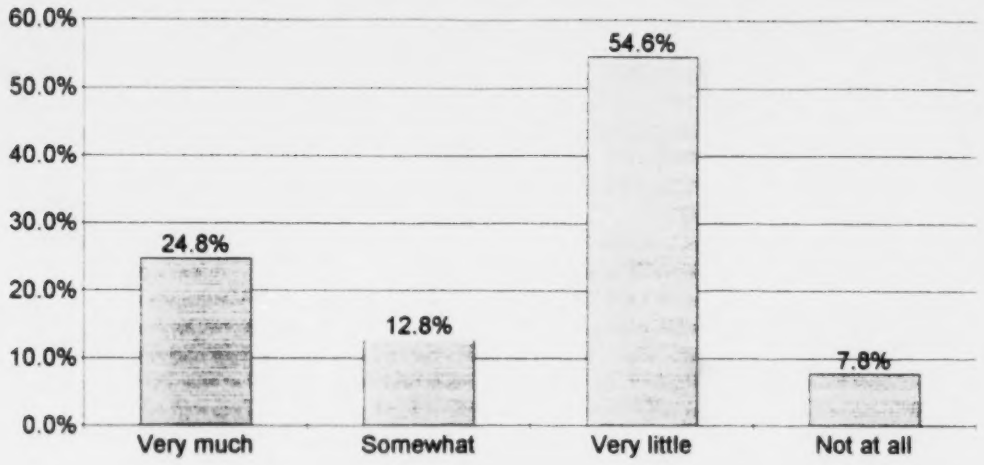

Figure 18. The percentages of Middle School students in the postintervention survey on the effect of the homework policy of receiving detentions for incomplete assignments encouraging the completion of homework.

The researchers suspect that the greater percentage of students affected "very much" and "very little" by the homework policy may be students who complete work most often. The percentage of students who felt that the homework policy affected them "very little", because they always did their homework anyway, added to the percentage who indicated that the homework policy affected them "very much", because they wanted to avoid detentions, was approximately 80%. In Figure 16, percentage totals were also 80% for those students stating that they always did their work or didn't do their work 1 - 3 times per week.

The researchers can also relate the percentage of students who didn't see any importance in doing homework shown in Figure 16 to the percentage of students choosing "not at all" in Figure 18.

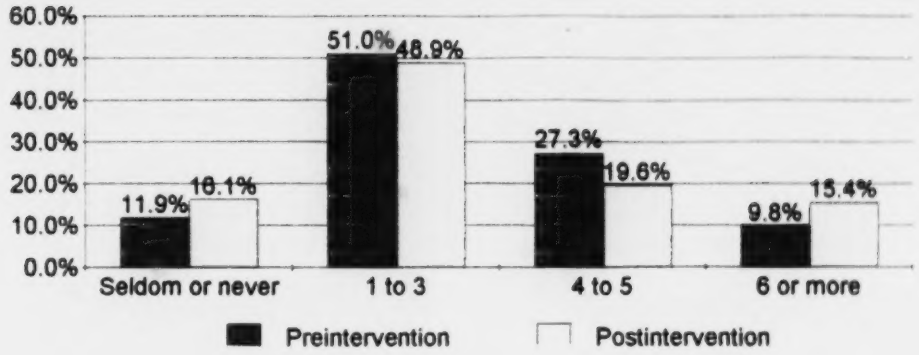

Figure 19. The pre and postintervention comparison of the Middle School students' perceptions of the number of times they participate in class per period; percent responding in each category.

The researchers noted that about the same percentage of students participated 1 -3 times in class discussion in both the pre and postintervention surveys. About one-third of the students participated 4 or more times in both surveys. The percentage of students who seldom or never participated in class discussion was offset by the increase in the number of students who participated 6 or more times per class.

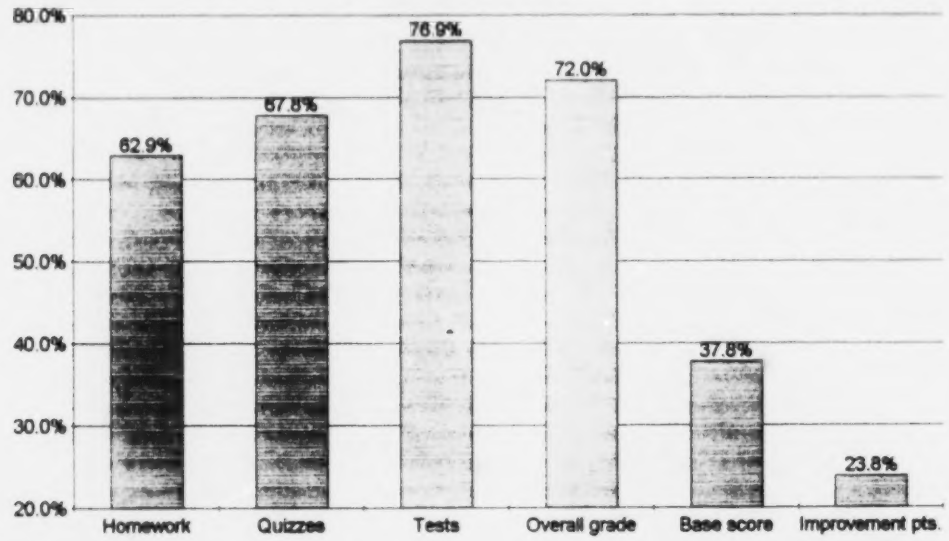

Figure 20. Postintervention percentages for the categories in which Middle School students set goals.

Based on the postintervention survey, the researchers observed that about three-fifths of the students set their goals on grade related topics of homework, quizzes, tests, and overall grade. Less than two-fifths of the students set goals regarding their base scores and improvement points. Over one-third of the students set goals on meeting or improving their base score, and nearly one-fourth of the students set goals relating to improvement points. The researchers especially noted that about three-fourths of the students are concerned with their overall grades.

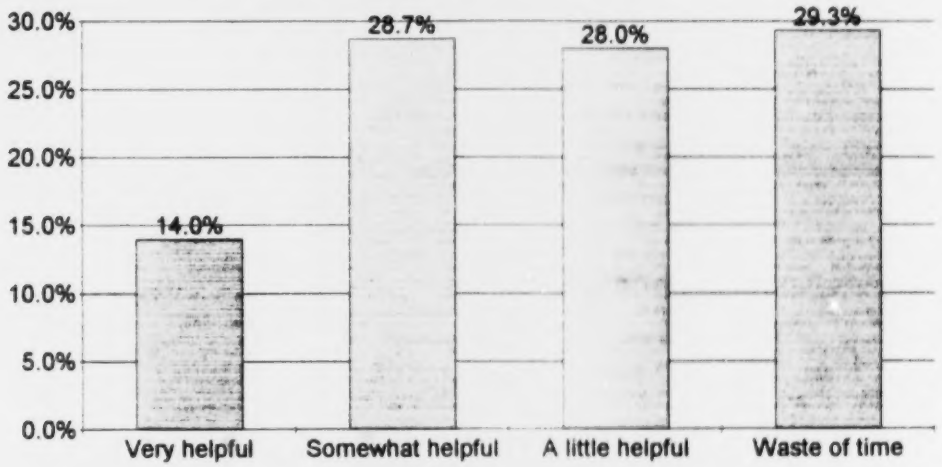

Figure 21. Postintervention percentages for the opinions of goal setting by Middle School students.

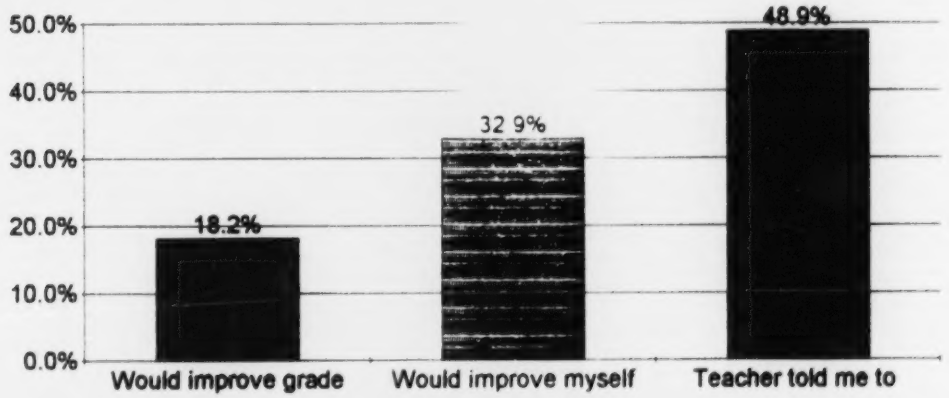

Figure 22. Postintervention percentages for the Middle School students' opinions as to why goals were set.

Nearly three-tenths of the students felt on the postintervention survey that setting goals was a waste of time; however, the other seven-tenths stated that goal setting was helpful to some degree. About half of the students responded that the only reason they set goals was because they were required to do so by the teacher. Also, slightly over half the students responding to the postintervention survey saw setting goals as a way of improving themselves or their grade. The students who felt that goals were somewhat to very important shows a relationship to the percentage of students stating goals helped to improve themselves or their grade.

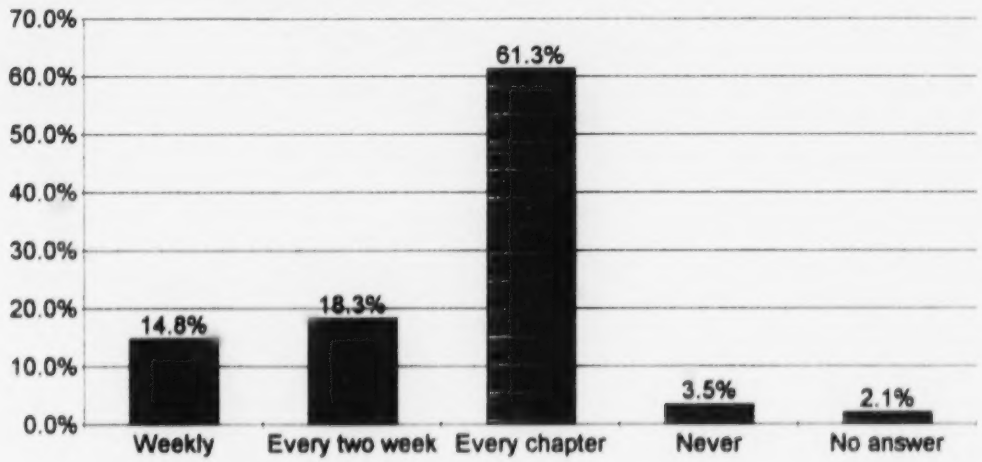

Figure 23. The percentages on the postintervention survey for the responses of Middle School students about how frequently goals should be set.

The question in the survey which asked students when they preferred to set goals only offered three responses which were as follows: (a) weekly, (b) every two weeks, (c) every chapter. The percent of students who wrote-in "never" or did not respond to the question relates to the same percent of students who, in previous questions, responded that homework was not important , spent the least amount of time on homework, poor attitude towards completion of homework, and an attitude of indifference towards receiving a detention.

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In the previous question, about half of the students responded that goals were set only because the teacher required them to set their goals. The researchers feel this attitude is reflected in this question when about three-fifths of the students chose to set goals every chapter. Chapter goals would require the students to set goals the least number of times since it usually requires over two weeks to complete a chapter.

In the future to achieve a more accurate response to this question, the researchers would add the response "never" to the answers already given for the question.

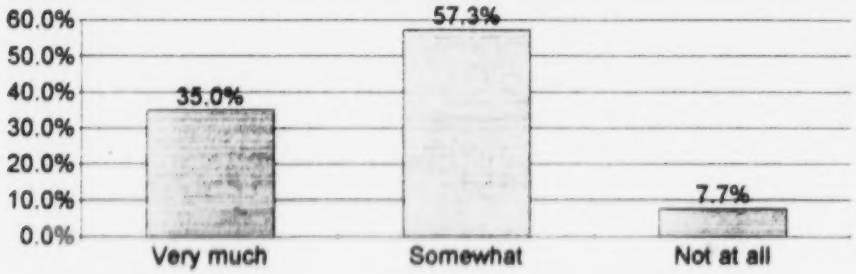

Figure 24. The effect of graphing scores on the effort of Middle School students; percentage responding in each category in the postintervention survey.

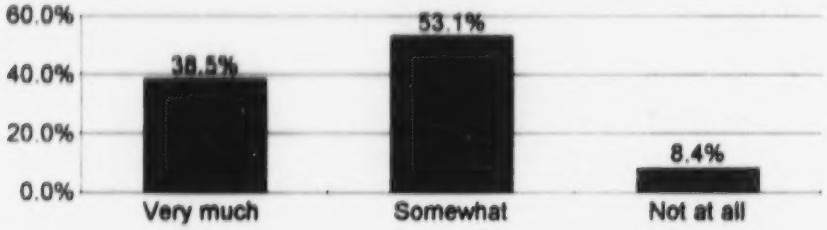

Figure 25. The effect of visualization of scores on a graph affecting the effort of Middle School students; percentage responding in each category in the postintervention survey.

In Figure 24 over nine-tenths of the students stated that graphing their scores affected their effort somewhat or very much. In addition, Figure 25 shows that nearly the same percentage of students who stated graphing affected their effort positively also felt that seeing their scores affected their effort.

The percentage of students from previous data who have shown a lack of interest in the academics and intervention seem to appear again in the percent of students in Figure 24 and 25 stating that graphing didn't affect their effort.

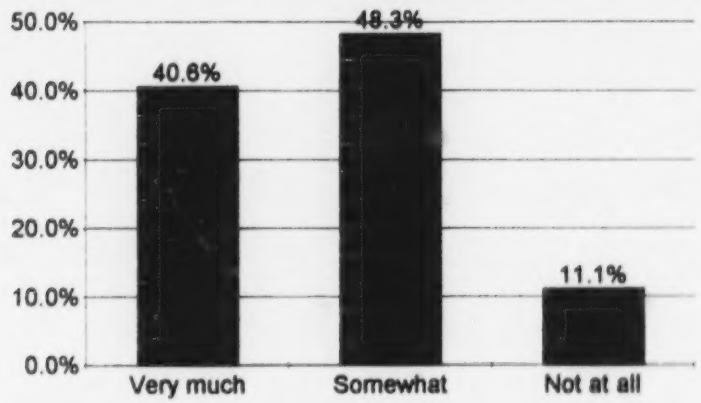

Figure 26. The percentage responding in each category in the postintervention survey on the effect of improvement points on the effort of Middle School students.

There was a positive response shown in the data concerning how earning improvement points affected student effort. Nearly 90% of the students stated that improvement points helped improve their effort to some degree. Almost two-fifths of the students liked getting the improvement points for extra credit by choosing "very much - I like getting extra credit" on the postintervention survey. Also stated as an option on the survey, almost half of the students felt that improvement points affected their effort somewhat, but they could have earned more improvement points if they would have tried harder.

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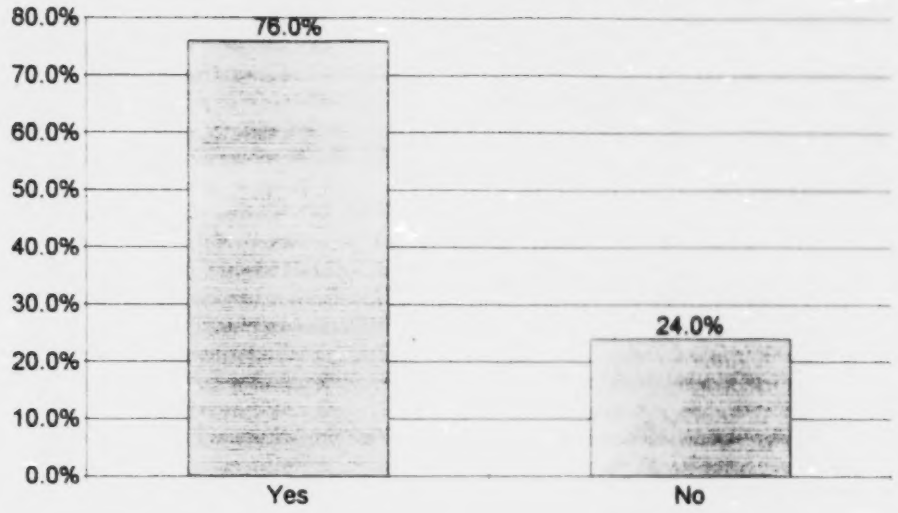

Figure 27. The recommendation of Middle School students to continue the goal setting and improvement point system; the percentage responding in each category in the postintervention survey.

Over three-fourths of the students in both the seventh and eighth grade recommended that the goal setting and the improvement points system be used next year. The students were asked to list comments about the goal setting and improvement point system (Appendix R). The vast majority of positive comments made about the plan fell into these categories: "the system can help students", "the improvement point system helps to keep scores higher", and "helps you to work harder". The few negative comments centered around "goal setting was a waste of time" and "I don't care".

Table 1

Students Receiving and Returning All Homework Contracts

	1st Quarter				2nd Quarter			
	Received		Returned		Received		Returned	
Class	Number	Percent	Number	Percent	Number	Percent	Number	Percent
8th Algebra	45	58%	22	49%	56	71%	22	39%
7th Language Arts	36	51%	14	20%	34	49%	12	17%
7th Math	33	46%	21	64%	21	33%	8	35%
7th Science	36	51%	8	22%	30	43%	5	17%

A homework contract (Appendix S & T) is received when a student does not complete a homework assignment. If the assignment and the signed contract are not returned the next day the result is a zero.

The rescarchers felt that too many students in seventh and eighth grade took homework contracts. There were more students returning contracts taken in the first quarter than the second quarter. During the second quarter fewer seventh grade students took contracts in the three subject areas of language arts, math, and science but, a greater number of students failed to return the contract with the incomplete assignment. There were a greater number of eighth grade algebra students receiving contracts the second quarter than the first quarter with the same percentage of students fulfilling the obligation of the contract. The eighth grade algebra teacher noted 14 students who didn't receive any contracts the first quarter did receive a contract in the second quarter; however, 12 of these 14 students never received enough zeros to earn a detention (Appendix V).

The researchers feel the increase in the number of students obtaining contracts in the second quarter could be due to the following reasons: (a) increased involvement in extracurricular activities such as: baseball, basketball for both boys and girls, cheerleading, pom pons, student council, and declamation, (b) the increase difficulty level of material from the beginning of the school year, (c) the "newness" of the school year and the desire

to excel has diminished, and (d) the homework policy allowing two incomplete assignments per semester for each subject.

Table 2.

Students Who Never Received a Homework Contract.

	1st Quarter		2nd Quarter	
Class	Number	Percent	Number	Percent
8th Algebra	33	42%	23	29%
7th Language Arts	35	49%	37	53%
7th Math	38	54%	47	67%
7th Science	35	49%	40	57%

Nearly half of the students never received contracts in the first quarter. During the second quarter, the seventh grade had nearly half of the students in language arts do all of their assignments, almost two-thirds completed all of their math assignments, and about three-fifths of the students finished all of their science assignments. Although three-tenths of the eighth grade algebra students completed all the assignments second quarter, this was a decrease from the first quarter.

After further investigation, the researchers suggest that the decrease in completed assignments in eighth grade algebra could be attributed to not completing work when absent. Also, the vast majority only had taken one contract and two new students entered the class and received contracts.

Table 3.

Number of Homework Contracts Taken and Number and Percentage of Contracts Returned.

	1st Quarter			2nd Quarter			Semester		
Class	Number Taken	Number Returned	Percent Returned	Number Taken	Number Returned	Percent Returned	Number Taken	Number Returned	Percent Returned
8th Algebra	151	61	40%	197	80	41%	348	141	41%
7th Language Arts	36	22	61%	62	41	66%	98	63	64%
7th Math	83	48	58%	94	48	51%	177	96	54%
7th Science	79	22	28%	55	14	25%	134	36	27%

In the seventh grade math and the eighth grade algebra classes, there was a greater number of assignments given than the other classes (around 20 - 25 assignments per quarter). The seventh grade math students had a higher percent of return than the algebra students. This could be due to the "newness" of the homework contract system for the seventh grade. The eighth grade algebra teacher was the only teacher using contracts in the eighth grade. Whereas, all the seventh grade teachers used the same contract policy. Perhaps being the only teacher in the eighth grade using the homework contract, diminished the significance of the contract.

In seventh grade science, if a student had taken a contract but had time to finish the assignment before the end of the class, the teacher accepted the assignment and took back the contract. Therefore, the remaining students were the more irresponsible students and had a low return rate.

The high return rate in language arts could be due to the low number of homework grades taken. There were eight homework assignments given in the first quarter and 10 in the second quarter. The seventh grade language arts students returned over 60% of the contracts taken.

Table 4.

Homework Policy Results for the Number and Percentage of Students Receiving 3 or More Zeros.

	1st Quarter		2nd Quarter		Semester	
Class	Number	Percent	Number	Percent	Number	Percent
8th Algebra	15	19%	15	19%	20	25%
7th Language Arts	2	3%	3	4%	6	9%
7th Math	4	6%	7	10%	10	14%
7th Science	8	11%	4	6%	15	21%

Table 5.

Homework Policy Results for the Number and Percentage of Students Receiving 6 or More Zeros.

	1st Quarter		2nd Quarter		Semester	
Class	Number	Percent	Number	Percent	Number	Percent
8th Algebra	7	9%	7	9%	15	19%
7th Language Arts	0	0%	1	1%	3	4%
7th Math	0	0%	2	3%	5	7%
7th Science	1	1%	0	0%	5	7%

The district homework policy states that upon the third, fourth, and fifth incomplete assignment in each subject area the student receives a one hour after school detention. For the sixth, seventh, and eighth times the student fails to complete a homework assignment, a short Saturday detention is issued. A short Saturday detention is held from 8:00 - 10:30 am every other Saturday of the month. When the student does not complete the ninth, tenth, and all subsequent assignments, the consequence is a long Saturday detention which is held every other Saturday of the month from 8:00 am - 1:00 pm.

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In the eighth grade algebra the 15 students who had 3 or more missed assignments received 87% of all the zeros given in the first quarter. Those seven algebra students who had 6 or more incomplete assignments received 55% of all the zeros given for the first quarter. The two students in the seventh grade language arts class who had 3 or more missed assignments acquired 57% of the zeros in the first quarter. In seventh grade math the four students who failed to complete 3 or more assignments earned 60% of the zeros obtained in the first quarter. The eight students in seventh grade science recording 3 or more missed assignments received 54% of the zeros given. There was only one student in the entire seventh grade who had six or more incomplete assignments and was responsible for 12% of all the zeros received in science.

Second quarter data reflects similar results. Fifteen algebra students who failed to complete 3 or more assignments received 77% of the zeros while the seven students who obtained 6 or more zeros earned 54% of the zeros. The three seventh grade language arts students with 3 or more incomplete assignments acquired 42% of the second quarter zeros. The one student who did not turn in 6 or more assignments earned 21% of the zeros. In seventh grade math, the seven students who neglected to complete 3 or more assignments received 74% of the zeros. The two math students with 6 or more incomplete assignments obtained 28% of the zeros. Four seventh grade science students received 37% of the zeros when they did not complete 3 or more assignments. There were no science students who received 6 or more zeros in the second quarter.

The semester results continue to support the data from the first and second quarters that a relatively few number of students who failed to complete homework assignments are responsible for receiving the large percentage of zeros in each subject. Twenty algebra students received 86% of the zeros for the semester when they failed to complete 3 or more assignments. Fifteen of the algebra students earned 76% of the zeros for 6 or more incomplete assignments. The six language arts students with 3 or more incomplete assignments obtained 53% of the zeros for the semester. There were three

students with 6 or more incomplete assignments and they were responsible for 44% of the zeros for the semester. In seventh grade math, ten students who neglected to complete 3 or more assignments obtained 77% of the zeros. Five math students who did not do 6 or more assignments earned 52% of the zeros given for the semester. The fifteen seventh grade science students having 3 or more incomplete assignments acquired 77% of the zeros. Of the five students who failed to complete 6 or more assignments, they obtained 28% of the zeros for the semester.

The increased number of students receiving 3 or more and 6 or more zeros for the semester is due to the cumulative factor of the homework policy. Consequences accumulate to the semester at which time every student begins the second semester with a clean slate. The percentage reflected in the tables relate closely to the percentages of students in Figures 14, 15, 16, and 18 who felt homework was a waste of time, spent little or no time completing homework or responded, "why do homework", and stated the homework policy had no effect on the encouragement of homework completion. The researchers noted the same students were responsible for failing to complete assignments. One of the researchers supervised most of the Saturday detentions and confirmed the fact that the same students continued to appear for each Saturday detention.

Table 6.

Assignment Completion

	1st Quarter			2nd Quarter		
Class	Number of Zeros	Number of Assignments	Completion Percentage	Number of Zeros	Number of Assignments	Completion Percentage
8th Algebra	91	1716	94.7%	117	1732	93.2%
7th Language Arts	14	568	97.6%	38	710	94.7%
7th Math	35	1562	97.8%	46	1750	97.4%
7th Science	57	1136	95.0%	41	1470	97.2%

	Semester		
Class	Number of Zeros	Number of Assignments	Completion Percentage
8th Algebra	208	3448	94.0%
7th Language Arts	52	1278	96.0%
7th Math	81	3312	97.6%
7th Science	98	2606	96.2%

Researchers calculated that in both eighth grade algebra and seventh grade classes students turned in nearly 95% of the homework lessons assigned for the first quarter, second quarter, and the semester. Although this table shows responsibility in handing in work, the quality of the work of the students is not reflected. The seventh grade researchers observed that work was often poorly done. In eighth grade algebra, the daily homework was graded on the percentage completed to encourage students to attempt every problem. However, the amount of the work completed is not reflected in this table.

Table 7.

Individual Base Score Results After each Round.

Round 1

Class	Up		Down		Same	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	43	55%	32	41%	3	4%
7th Language Arts	11	55%	8	40%	1	5%
7th Math	38	53%	26	37%	7	10%
7th Science	53	75%	16	22%	2	3%

Round 2

Class	Up		Down		Same	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	25	32%	47	60%	6	8%
7th Language Arts	4	20%	16	80%	0	0%
7th Math	2	3%	66	94%	2	3%
7th Science	34	48%	32	45%	5	7%

Round 3

Class	Up		Down		Same	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	43	54%	33	42%	3	4%
7th Language Arts	17	85%	3	15%	0	0%
7th Math	15	21%	54	77%	1	2%
7th Science	30	42%	34	48%	7	10%

Round 4

Class	Up		Down		Same	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	39	51%	35	45%	3	4%
7th Language Arts	NA	NA	NA	NA	NA	NA
7th Math	NA	NA	NA	NA	NA	NA
7th Science	NA	NA	NA	NA	NA	NA

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Table 8.

The Degree of Decrease of Students' Base Scores After each Round.

Round 1

Class	1 to 4 pts.		5 to 9 pts.		10+ pts.	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	8	25%	11	34%	13	41%
7th Language Arts	1	13%	5	62%	2	25%
7th Math	13	50%	7	27%	6	23%
7th Science	5	31%	1	6%	10	63%

Round 2

Class	1 to 4 pts.		5 to 9 pts.		10+ pts.	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	10	21%	17	36%	20	43%
7th Language Arts	5	31%	7	44%	4	25%
7th Math	7	11%	6	9%	53	80%
7th Science	15	47%	12	38%	5	15%

Round 3

Class	1 to 4 pts.		5 to 9 pts.		10+ pts.	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	15	46%	12	36%	6	18%
7th Language Arts	1	33%	1	33%	1	33%
7th Math	11	20%	21	39%	22	41%
7th Science	14	41%	14	41%	6	18%

Round 4

Class	1 to 4 pts.		5 to 9 pts.		10+ pts.	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	8	23%	12	34%	15	43%
7th Language Arts	NA	NA	NA	NA	NA	NA
7th Math	NA	NA	NA	NA	NA	NA
7th Science	NA	NA	NA	NA	NA	NA

Table 9.

The Degree of Increase of Students' Base Scores After Each Round.

Round 1

Class	1 to 4 pts.		5 to 9 pts.		10+ pts.	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	14	32%	21	49%	8	19%
7th Language Arts	5	45%	5	45%	1	9%
7th Math	20	53%	15	39%	3	8%
7th Science	18	34%	25	47%	10	19%

Round 2

Class	1 to 4 pts.		5 to 9 pts.		10+ pts.	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	19	76%	5	20%	1	4%
7th Language Arts	2	50%	2	50%	0	0%
7th Math	2	100%	0	0%	0	0%
7th Science	16	47%	11	32%	7	21%

Round 3

Class	1 to 4 pts.		5 to 9 pts.		10+ pts.	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	10	23%	17	40%	16	37%
7th Language Arts	10	59%	6	35%	1	6%
7th Math	10	67%	2	13%	3	20%
7th Science	18	60%	7	23%	5	17%

Round 4

Class	1 to 4 pts.		5 to 9 pts.		10+ pts.	
	Number	Percent	Number	Percent	Number	Percent
8th Algebra	22	58%	8	21%	9	23%
7th Language Arts	NA	NA	NA	NA	NA	NA
7th Math	NA	NA	NA	NA	NA	NA
7th Science	NA	NA	NA	NA	NA	NA

The base scores averaged at the end of each round are greatly reflective of the previous round's base score and the three assessments selected to be averaged for each particular round (Appendix X). The level of difficulty of the assessments chosen from a unit or chapter might determine the increase or decrease of base score levels from one round to the next. In seventh grade language arts, math, and eighth grade algebra, all the assessments chosen for each round were quizzes and tests. While in seventh grade science a variety of assessments such as reports, labs, presentations, and tests were used for varying rounds; therefore, it was difficult to get an actual overall performance level in the class.

In both math classes at the beginning of the year, a review of previously taught material was the content of the round one assessments. Beginning in round two, new material was introduced which relates to the higher number of students whose base scores decreased. By round three, there are a fewer number of students who decrease their base score average. This is possibly due to familiarity of procedure and progress to the next round.

In language arts, the increase or decrease in base score level is strongly reflective of the students' interest in the literature stories. The decrease for round two could also have been affected by the unit of English grammar taught. Round three assessments were primarily from literature stories like round one. The numbers reflect data only taken from one class which one researcher team taught with the seventh grade language arts teacher.

Table 10.

Comparison of Grades from 1st to 2nd Quarter.

+ and - Grade						
	Up		Down		Same	
Class	Number	Percent	Number	Percent	Number	Percent
8th Algebra	12	16%	20	26%	44	58%
7th Language Arts	11	16%	33	47%	26	37%
7th Math	27	38%	25	36%	18	26%
7th Science	9	13%	45	64%	16	23%

Whole Letters						
	Up		Down		Same	
Class	Number	Percent	Number	Percent	Number	Percent
8th Algebra	7	9%	10	13%	59	78%
7th Language Arts	8	11%	16	23%	46	66%
7th Math	17	24%	18	26%	35	50%
7th Science	5	7%	30	43%	35	50%

Table 11.

Number of Students Receiving each Letter Grade for the 1st and 2nd Quarters.

	1st Quarter					2nd Quarter				
Class	A	B	C	D	F	A	B	C	D	F
8th Algebra	43	7	9	6	13	41	10	8	7	12
7th Language Arts	7	30	21	16	3	5	20	27	13	5
7th Math	13	20	18	16	4	11	20	23	10	6
7th Science	25	22	10	10	4	13	25	14	15	3

The researchers obtained their data three ways; percentage grade, letter grade using (+) and (-), and whole letter grades, but decided that the letter grade scale using (+) and (-) was the most relevant to the students because these are the grades used on their report cards. Except for the eighth grade algebra, the overall grade reflects less than two-

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fifths of the components affected by the intervention. The decrease in the grades was not due to failing a subject but, a shift of one or two letter grades (Appendix U).

Table 11 shows the number of students and the letter grade they received in the first and second quarters. Looking at the down column from the whole letter portion of Table 10 and the second quarter grades in Table 11 the number of F's remained almost the same. The number of A's shifted slightly downward in three out of the four subject areas. In seventh grade math and science 50% of the students' whole letter grades remained the same. Two-thirds of the language arts whole letter grades remained the same and nearly 80% of the eighth grade algebra whole letter grades stayed the same.

The researchers felt that the grade shifts were in the acceptable range for the majority of the students.

Conclusions and Recommendations

Multiple intelligences were used in each of the researcher's classes. According to teacher observations, lessons that involved a greater variety of multiple intelligences, specifically the bodily/kinesthetic intelligence, produced a higher level of intrinsic motivation among most students. However, some lessons using interpersonal and intrapersonal intelligences did not produce an equally significant level of engagement. For example, some student responses on journaling assignments were somewhat superficial and seemed to be completed only to the teacher's minimum request.

Teacher researchers used a variety of methods to emphasize transfer of learning. They specifically emphasized the importance of knowledge gained for future classes at the high school level, occupations, and everyday life. Researchers observed that students showed very little motivation when focus on transfer was too far into their future. More motivation was shown for short-term needs; examples include, absorbing information for a test or quiz, a project, and/or personal interests.

Upon completion of goal setting lessons and practice of setting goals after each round, researchers concluded from data collected that goal setting was beneficial and was recommended by the students to be continued next year.

The students were actively involved in the improvement point system by plotting each of their assessments on a graph. The visualization of the graphing enhanced the students' desire to improve their grades over their base line score. The improvement points offered for extra credit also helped student motivation. Data shows that students overwhelmingly suggest the continued use of this system.

Researchers recommend that the use of multiple intelligences theory, goal setting, and the improvement point system be used in the future. Multiple intelligences theory should be implemented into daily lessons. Lessons can be continually improved or enhanced and the frequency that multiple intelligences is used should increase. Researchers also suggest that goal setting lessons be increased to weekly or bi-weekly sessions. Students benefit more by setting current short term goals more frequently.

When determining starting base scores for students, researchers recommend lowering the previous year's number percentage grade by 10 points instead of 5 percentage points. This will allow students a greater opportunity to earn improvement points.

After analysis of assessments chosen for each round, researchers agreed that either more assessments or a wider variety of assessments be used in order to calculate each base score. Half of the researchers plotted assessments one at a time as completed, while the other half plotted all of the assessments for each round at once. The researchers felt that students assessment points were more meaningful to the students if plotted individually. Therefore, researchers also recommend that students plot each assessment on the graph at separate times as completed. Students are able to keep a more current view of their progress. The possibility of students graphing other assessments including their overall grade each week was considered a strong suggestion to teachers.

Researchers feel that although the implementation was helpful to the majority of students, it did not help the chronically apathetic students. Future studies should be conducted specifically targeting this at-risk group of students.

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Appendix A
Parent Cover Letter

Dear Parent / Guardian:

As part of a Field-Based Masters Program, several middle school teachers are doing research on student motivation in the classroom. As part of the research project, the teachers will be conducting surveys of parents and students. These surveys and interviews will not affect the students grade. All surveys and interviews will be voluntary and confidential. The results of the surveys and interviews will be used to try to improve motivation of students in the classroom.

Enclosed are copies of the surveys that we would like you, as parents or guardians, to complete and return anonymously. Copies of the student survey and interview are enclosed for you to peruse.

Please place your completed survey in the blank envelope provided and complete the permission form below. Your child should return both forms and place each in an appropriately labeled box found in Mr. Marquardt's room for eighth graders or in Ms. Lane's room for seventh graders.

Thank you for your participation and cooperation in this project.

Sincerely,
Charlotte Lane
Mary Ann Meyer
Wren Murray
Jeff Marquardt

PLEASE PLACE A CHECK IN FRONT OF THE APPROPRIATE RESPONSE

____ YES, my child has my permission to complete the survey and be interviewed for the research study.

____ NO, my child does not have permission to complete the survey and be interviewed for the study.

_____ child's name

_____ Signature of Parent or Guardian - - Date

Appendix B
Parent/Guardian Survey

PARENT / GUARDIAN SURVEY

1. How often do you make sure your child's homework is completed?
   a. every night
   b. often
   c. seldom
   d. never

2. How many times during the week does your child mention academic school work or activities?
   a. daily
   b. 3 or more times a week
   c. 1-2 times a week
   d. never

3. How often do you actively participate in helping your child with homework assignments, i.e. studying for tests/quizzes, projects, etc.?
   a. daily
   b. 3 or more times a week
   c. 1-2 times a week
   d. never

4. In your opinion, how important is homework to your child's learning?
   a. very important
   b. somewhat important
   c. not very important
   d. waste of time

5. What do you think are some underlying causes for the lack of motivation of middle school students toward academic work?

Place your comments here:

Additional comments on the previous questions:

Appendix C
Parent/Guardian Survey Results

PARENT / GUARDIAN SURVEY

1. How often do you make sure your child's homework is completed?
   a. every night 69
   b. often 21
   c. seldom 4
   d. never 0

2. How many times during the week does your child mention academic school work or activities?
   a. daily 58
   b. 3 or more times a week 26
   c. 1-2 times a week 10
   d. never 0

3. How often do you actively participate in helping your child with homework assignments, i.e. studying for tests/quizzes, projects, etc.?
   a. daily 29
   b. 3 or more times a week 30
   c. 1-2 times a week 33
   d. never 2

4. In your opinion, how important is homework to your child's learning?
   a. very important 64
   b. somewhat important 27
   c. not very important 2
   d. waste of time 0

5. What do you think are some underlying causes for the lack of motivation of middle school students toward academic work?

Place your comments here:

Additional comments on the previous questions:

Appendix C cont

Parent/Guardian Survey Comments

Lack of parental involvement (22 responses)

Subject or presentation not interesting to student (21 responses)

Social distractions such as extracurricular activities, peer relationships, etc (19 responses)

Homework has no value or importance (16 responses)

Poor teacher/student relationships (11 responses)

Appendix D
Student Survey

STUDENT SURVEY

1. In your opinion, how important is homework in your learning?
   a. very important
   b. somewhat important
   c. not very important
   d. waste of time

2. Approximately how much time do you devote to homework after school hours?
   a. 15 minutes - 1 hour
   b. between 1-2 hours
   c. over 2 hours
   d. seldom or never do homework

3. In a nine week grading period, approximately how many times do you not do homework?
   a. always turn in my homework
   b. didn't do 1-3 times
   c. didn't do 4-6 times
   d. why do homework?

4. If you receive a detention for not doing homework, what does the detention mean to you?
   a. no big deal
   b. I'm in big trouble at home
   c. oops - I'd better get my act together
   d. I would never get a detention

5. How many times do you actively participate in a class discussion?
   a. 1-3 times for each class
   b. 4-5 times for each class
   c. 6 or more times for each class
   d. seldom or never participate

6. How do you study and learn best?
   a. in class with the teacher to answer questions
   b. study hall with a friend
   c. by myself
   d. with a parent or brother or sister
   e. after school hours with a friend

Appendix D cont

7. How do you like to work on assignments or projects?
   a. alone
   b. with a partner
   c. in a cooperative group of 3-5 students
   d. whole class

8. What do you like most about school work? (choose two)
   a. discussions
   b. projects and activities
   c. cooperative learning
   d. homework
   e. tests or quizzes

9. What type of assignment do you like to do?
   a. group project
   b. individual project
   c. worksheets
   d. read and answer questions

10. What type of assignment is your least favorite?
   a. group project
   b. individual project
   c. worksheets
   d. read and answer questions

11. Rank the order in which you do these activities after school. Place a 1 beside the activity you do first, a 2 beside the activity you do second, etc.:

_____ take a nap
_____ eat a snack
_____ watch TV
_____ do homework
_____ talk on the phone
_____ do an activity with a friend
_____ extracurricular activities such as school sports teams, pom pons, student council, cheer leading, yearbook, etc.
_____ exercise - ride a bike, play basketball, swim, roller blade, etc.

Appendix E
Student Survey Results

STUDENT SURVEY

1. In your opinion, how important is homework in your learning?
   a. very important 63
   b. somewhat important 65
   c. not very important 10
   d. waste of time 7

2. Approximately how much time do you devote to homework after school hours?
   a. 15 minutes - 1 hour 35
   b. between 1-2 hours 44
   c. over 2 hours 10
   d. seldom or never do homework 6

3. In a nine week grading period, approximately how many times do you not do homework?
   a. always turn in my homework 65
   b. didn't do 1-3 times 55
   c. didn't do 4-6 times 17
   d. why do homework? 5

4. If you receive a detention for not doing homework, what does the detention mean to you?
   a. no big deal 31
   b. I'm in big trouble at home 32
   c. oops - I'd better get my act together 65
   d. I would never get a detention 17

5. How many times do you actively participate in a class discussion?
   a. 1-3 times for each class 74
   b. 4-5 times for each class 40
   c. 6 or more times for each class 14
   d. seldom or never participate 17

6. How do you study and learn best?
   a. in class with the teacher to answer questions 35
   b. study hall with a friend 18
   c. by myself 23
   d. with a parent or brother or sister 40
   e. after school hours with a friend 18

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7. How do you like to work on assignments or projects?
   a. alone 19
   b. with a partner 85
   c. in a cooperative group of 3-5 students 33
   d. whole class 8

8. What do you like most about school work? (choose two)
   a. discussions 41
   b. projects and activities 72
   c. cooperative learning 25
   d. homework 3
   e. tests or quizzes 4

9. What type of assignment do you like to do?
   a. group project 90
   b. individual project 17
   c. worksheets 36
   d. read and answer questions 2

10. What type of assignment is your least favorite?
    a. group project 11
    b. individual project 24
    c. worksheets 30
    d. read and answer questions 80

11. Rank the order in which you do these activities after school. Place a 1 beside the activity you do first, a 2 beside the activity you do second, etc.:

8 take a nap 10
1 eat a snack 110
3 watch TV 91
2 do homework 96
6 talk on the phone 59
5 do an activity with a friend 66
4 extracurricular activities such as school sports teams, pom pons, student council, cheer leading, yearbook, etc. 77
7 exercise - ride a bike, play basketball, swim, roller blade, etc. 58

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Appendix F
Interview

INTERVIEW

ASK STUDENT IF HE OR SHE WOULD LIKE TO VOLUNTARILY PARTICIPATE IN THIS INTERVIEW SESSION

QUESTIONS:

1. What was your favorite grade in the past? Why?
OR Think about your favorite teacher in the past, then describe what you liked about his/her class.

2. What grade or teacher was your least favorite? Why?

3. Do you think that certain teachers help you learn "better" or more easily? What things do these teachers do that help you?

4. When you learn something new, how does that make you feel?

   What makes you want to learn something new?

5. What subject(s) is/are your favorite? Why do you think you like those subjects?

6. If you don't have a favorite subject, what are your interests? What type of career could you have using your interests? What type of education would you need for this career?

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Appendix F cont

7. What activities in class do you like to do the best? (reading, math problems, etc.)

8. What helps you do well on tests?

9. Do you ever not do work that is assigned to you? Reasons?

10. What are some reasons other kids don't do their school work?

11. What would be the best way for teachers to encourage kids to complete their work and do their best in school?

Appendix G
Interview Comments

1. The students' answers varied from grade to grade with fourth and fifth grades being the most prevalent choice for the students favorite grade. These years were enjoyed the most because of the activities the students did, field trips taken, prizes received from the teacher, having books read to them, storytelling by the teacher, many examples of work given by the teacher, and help received from the teacher.

2. The students' answers varied from grade to grade with fifth and sixth grades chosen as the least favorite grade. Comments were made regarding the strictness of the teacher, longer homework assignments, switching classes and teachers, and individuals received poor grades in subject areas where they had previously received good grades.

3. Most students felt that certain teachers helped them to learn "better". The activities these teachers used were games in the classroom, reading to the students, explained in more detail about how to do projects, and the students worked in groups.

4. Most students felt proud, confident, good, or smart when they learned something new. The students wanted to learn something new is they were interested in the subject, the information would lead to a better job in the future, or they were able to explain the problem or topic to someone else.

5. Math and science were selected as the favorite subjects because they liked working with numbers, the classes were fun, they like nature, enjoy doing experiments, and they realized the need for the subject in the future.

6. The students' interests involved sports, animals, piano and dance. Careers centered around their interests were pro-sports, oceanography, veterinarian, musician, or scientist. The students expressed the a college education would be needed. Two of the twelve students had not set any further educational goal at this time.

7. Favorite activities of the students were science experiments, plays and skits, projects and "hands-on" activities.

8. The following are methods students use to do well on tests: (a) read through chapter notes the night before the test, (b) study with a parent, (c) practice math problems, (d) reviewing with the teacher before the test, (e) study with a friend, and (f) teachers review using a game.

9. Most students responded that they always completed their work. Reasons given for not completing homework were as follows: (a) too tired, (b) forgot about the assignment, (c) forgot to bring it home, (d) too busy, and (e) better things to do that are more fun.

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Appendix G cont

10. The reasons given for not completing homework were as follows: (a) students don't care, (b) too boring, (c) too lazy, (d) don't care about their future and education, (e) not interested and get discourage, (f) always been this way, (g) will probably drop out of school, and (h) no time to do homework.

11. The students felt these methods could be used by teachers to encourage students to complete their work and do their best in school: (a) give prizes or rewards, (b) encourage them but don't yell at them, (c) don't expect perfection in each class, and (d) give extra credit points. One student believed the teachers could not encourage students because the student has to want to do the work himself.

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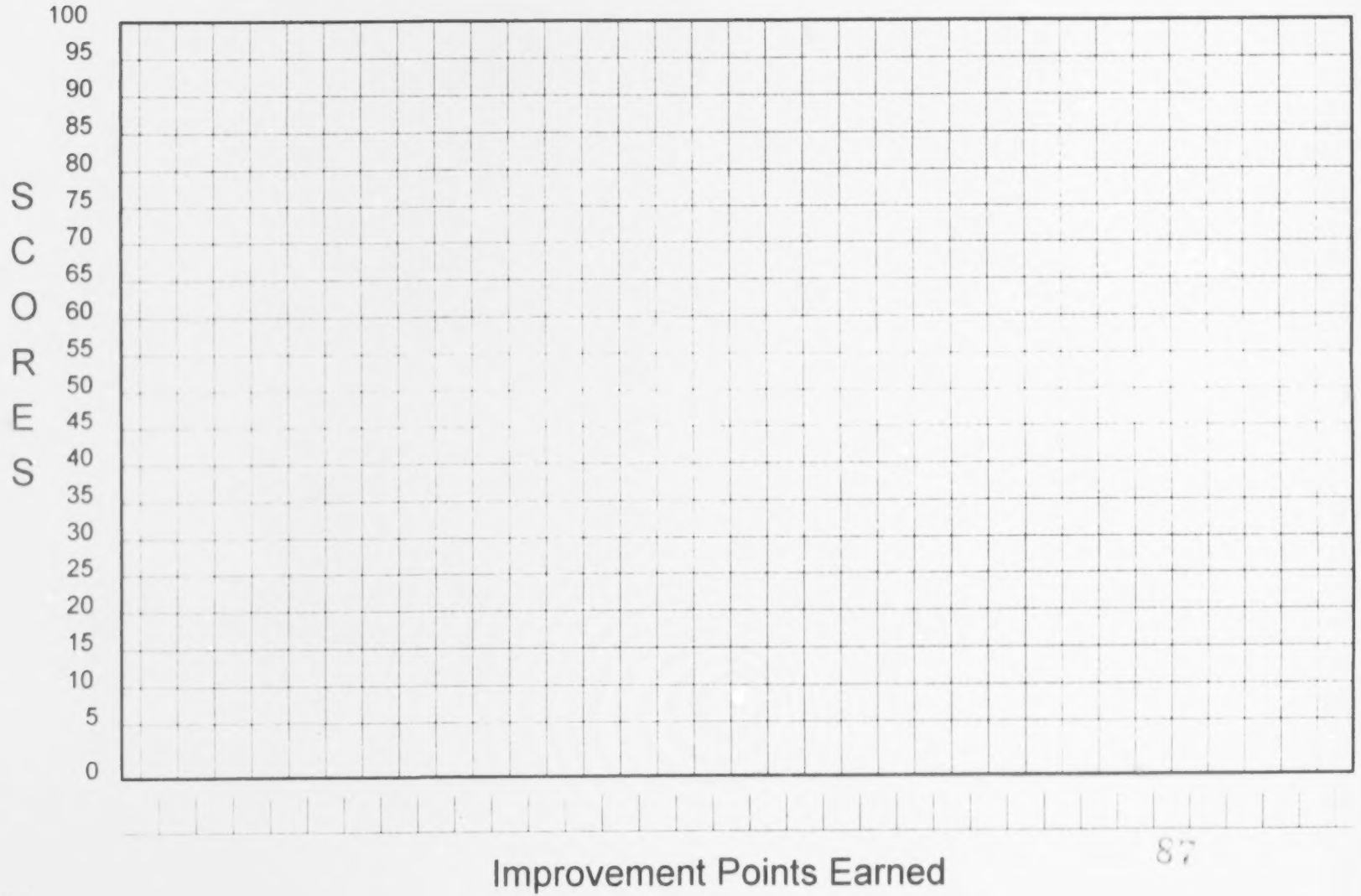
Appendix H
Improvement Point Graph

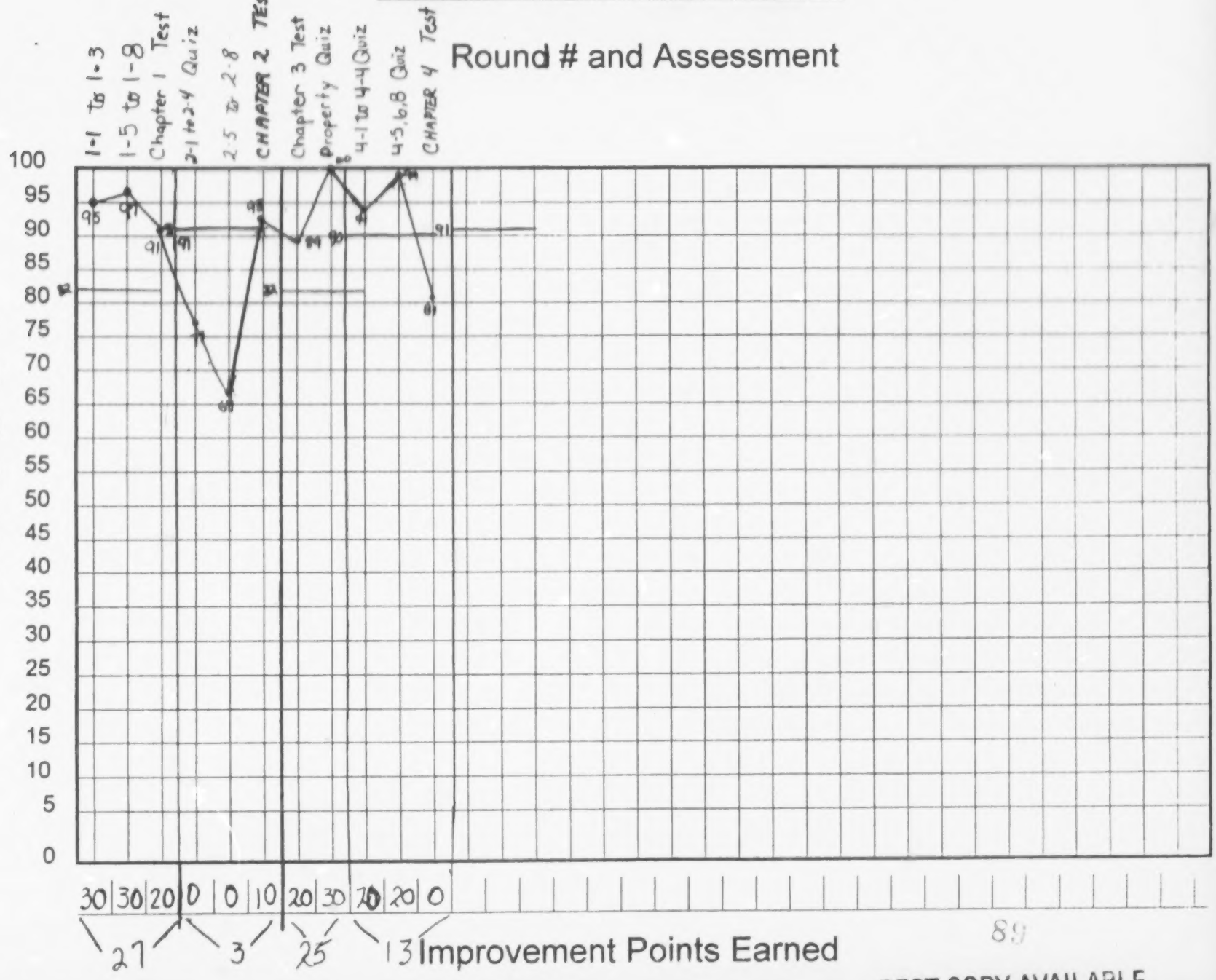
STUDENT IMPROVEMENT GRAPH

Round # and Assessment



Appendix I
Student Improvement Point Graph Example

STUDENT IMPROVEMENT GRAPH



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Appendix J
Multiple Intelligence Lesson Plan

Algebra Lesson Plan for the Silo Problem

Purpose Statement: To bring the concepts of geometric shapes and algebraic formulas together in a real life problem solving situation.

Objective: The students should be able to put together the concepts of volume pertaining to cylinders and hemispheres, surface area pertaining to cylinders, and linear distance to solve real world problems in an agricultural situation.

Lesson Plan:

I. State purpose of the lesson.
   To combine geometric shapes and algebraic formulas in order to solve real life problems.

II. State lesson objective.
   To put together the concepts of volume pertaining to cylinders and hemispheres, surface area pertaining to cylinders, and linear distance to solve real world problems in an agricultural situation.

III. Review concepts of volume and surface area along with their formulas from previous lessons.

IV. Divide the class into pairs. These pairs do not have to be based on ability. Make sure pairs can work productively together. **(Interpersonal)**

V. Hand out the Silo problem worksheet. Read through the entire worksheet checking for understanding of terms and symbols. **(Verbal / Linguistic)**

VI. Emphasize that the students need to visualize the problem in a three dimensional manner. The students should be given time to restate the problem verbally to their partner to make sure each understands the problem and what is needing to be done. The students should also be given time to brainstorm the process needed to solve the problem. **(Visual / Spatial, Verbal / Linguistic, and Logical / Mathematical)**

VII. Once a plan has been verbalized the students begin implementing their plan on the worksheet. Upon completing the calculations, the students should ask themselves three questions:
   1. Is the answer reasonable?
   2. Did I show all the steps needed?
   3. Did I state the answer using the proper units? **(Logical / Mathematical and Intrapersonal)**

Appendix J cont.

VIII. When students are satisfied with their answers and work, they are to write at least one paragraph explaining their calculations and answers. **(Verbal / Linguistic)**

IX. Upon completion of the worksheet, each pair should get together with another pair to discuss, compare, and contrast answers and methods. **(Interpersonal and Verbal / Linguistic)**

X. Answers to the problems are given in class for student feedback purposes. The worksheets are collected and checked for processes and explanations.

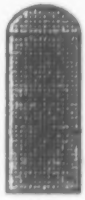
XI. After the collecting of the worksheets, a discussion is conducted on how the concepts can transfer to other areas of life. **(Logical / Mathematical and Verbal / Linguistic)**

Appendix J cont.

DIMENSION II TEST
SILO PROBLEM

INSTRUCTIONS: For each problem, show all work and then write at least a one paragraph explanation of your calculations and answer.

DEFINITION: Silo - for this problem also known as a grain bin. An airtight structure used to store grain or feed for farm animals.



Problem 1. A farmer produces 6000 ft^3 of corn and needs to store it in a silo, which is a cylinder shape. If the base of the silo must be 16 ft in diameter, how tall must the silo be in order to hold all the corn? **(disregard the hemisphere on top)** (4)

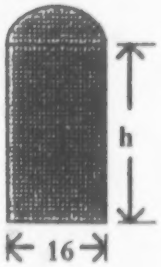
Use the following formula: $V = \pi r^2 h$

V = volume

π use the approximate value 3.14

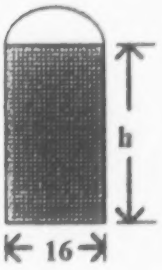
r = radius which is $^1/_2$ of the diameter

h = height of the object



From the previous page, write at least a one paragraph explanation of your calculations and answer. (2)

Problem 2. The farmer wishes to paint the cylinder part of the silo only. Each gallon of paint covers 75 ft^2 of area. How many full gallons will need to be purchased to do the job? (4) Use the following formula: **SA = 2π r h**
SA = surface area



Write at least a one paragraph explanation of your calculations and answer. (2)

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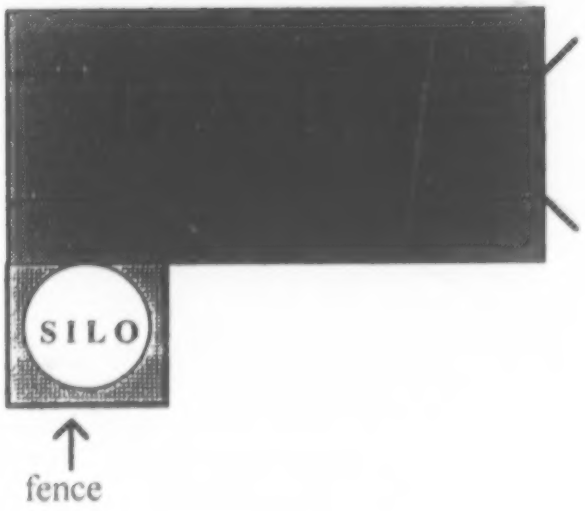
Appendix J cont

Problem 3. The silo is connected to the barn on one side. The farmer needs to enclose the silo on the other three sides with a fence. The fence follows the shape of a rectangular shaped concrete pad. The concrete pad has given a minimum of 2 feet of distance on the three sides not attached to the barn. How many feet of fence will the farmer need to enclose the silo? (4)



Write at least a one paragraph explanation of your calculations and answer. (4)

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Appendix K
Multiple Intelligence Lesson Plan

Circle Graphs
Sample Seventh Grade Math Lesson

Verbal/Linguistic and Intrapersonal Intelligences

Prior to the start of the lesson the students will write in their learning logs a response to one of these three statements: a) a question I have about circle graphs is . . . b) I wonder . . . about circles graphs, or c) I want to know . . . about circle graphs.

Logical/Mathematical, Visual/Spatial, and Bodily/Kinesthetic Intelligences

As part of the lesson a poem will be used which mentions a Mobius strip. The students make a Mobius strip by taking a strip of adding machine tape about twenty-four inches in length and twist the paper once and then tape the ends together. The students then predict what will happen when a cut is made down the center of the strip. After the predictions are written on the blackboard, the cut is made. The students discover a longer strip of paper with a twist is a result of the cut. The students are then asked to predict what will happen when the paper is cut again along the center. Predictions are made and recorded. The students cut down the center of the strip to discover two circles are formed. Finally, the students predict what will happen the next time the paper is cut along the center. Predictions are made and recorded. The students cut down the center to find four circles are formed. The activity can be continued if the strip of paper left to cut is wide enough.

Verbal/Linguistic Intelligence

Read the following poem which has been written on the blackboard:

A student confided:
"A Mobius strip is one-sided.
You get quite a laugh
If you cut one in half.
It stays in one piece when divided."

Logical/Mathematical and Visual/Spatial Intelligences

From this poem the students will learn how to construct a circle graph for the vowels found in this poem. This chart is used to help collect the data needed to make the circle graph:

Vowel	Tally (Frequency)	Fraction	Decimal	Percent	% of 360	Central Angle
A						
E						
I						
O						
U						
Total						

Appendix K cont.

To complete the table, the students first count each kind of vowel found in the poem and place that number in the "Vowel Tally (Frequency)" column. Second, each number from the first column is changed to a fraction by using this number as the numerator and the total as the denominator. Third, a decimal is made by dividing the numerator by the denominator and rounding to the nearest hundredth. Fourth, the "percent" column is completed by moving the decimal point two places to the right and adding a percent sign after the number. This column is add and must total 100%. If it doesn't, then the percents need to be adjusted up or down until 100% is obtained. Fifth, for the "% of 360 " column, the percent column now is changed to a decimal by dropping the percent sign and moving the decimal point two places to the left and " x 360" is written beside the decimal. Finally, to complete the "central angle" column, the multiplication is done from the previous column and the product rounded to the nearest whole number. This column must total 360 degrees. If it does not, adjustments need to be made by adding or subracting a degree until 360 degrees is obtained.

A demonstration of making a circle graph from the data in the table is shown on the blackboard. A compass is used to draw a circle. Using the data from the "central angle" column, a protractor is used to draw each angle inside the circle. As a sector is completed, it is label with the name of the vowel and the frequency with which it occurred in the poem. This process is continued until all the vowels have been graphed. The title of the graph is centered and written at the top of the paper. Under the graph and centered at the bottom of the paper is written the words, "Total Vowels," with the number for the total number of vowels centered under those words. If needed, a second demonstration can be done using the consonants from the poem.

Each class is surveyed to collect data on the following topics: 1) favorite color, 2) month of student's birth, 3) favorite food, 4) favorite sport, 5) favorite holiday, 6) favorite month, 7) favorite animal, 8) favorite type of television show, and 9) favorite month. The data was compiled by the teacher for accuracy and efficiency but could be done by trusted and reliable students.

Bodily/Kinesthetic, Interpersonal, and Verbal/Linguistic Intelligence

To assign students to one of the above graphs, they lined up (with no talking) from tallest to shortest and numbered from one to nine. Their number corresponds to the same number as the graph listed above. Students with the same number work together as a group. Before the students start making their charts and graphs, each group writes down all the steps in the correct order to make the table and the graph. The group checks with the teacher to make sure no steps have been omitted or added. Once this has been accurately done, the students proceed to construct their graphs using the data given to them. The graphs are completed and turned in to be graded. Each person in the group is required to do a graph.

Bodily/Kinesthetic Intelligence

Before giving the assignment from the textbook, students are asked questions about whether the data could be represented using a circle graph. An area of the classroom is designated as the area for those voting "yes" to a question and another area of the classroom is designated as the area for those voting "no". The questions used were as follows: a) the budget for a science fair project (yes), b) the outside temperature over a 24-hour period (no), c) how time was spent over a 24-hour period (yes), d) the high and

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low temperatures for the month (no), e) a city's comparison of precipitation in 1995 and 1996 (no), f) how many days were spent traveling to different states on a vacation (yes), and so on.

Visual/Spatial and Mathematical/Logical Intelligences

The students are to read pages 93-96 in the textbook, The University of Chicago School Mathematics Project: Transition Mathematics before beginning the written assignment on pages 96-98 problems 1-29.

Intrapersonal Intelligence

At the conclusion of teaching circles graphs (4-5 days) the students will also write in their learning log a response to the statement, "I learned... about circle graphs." The students will also write responses to "Mrs. Potter's Questions" which are: a) What is the purpose of studying circle graphs? b) What went well when you were learning about circle graphs? c) What would you do differently next time? d) How would you apply circle graphs to your life or where are circle graphs found in your life? e) Where do you need more help?

Resources

Jackson, A., Johnson, M., Leinwand, S., Lodholz, R., Musser, G., & Secada, W. Mathematics in Action. New York: MacMillan/McGraw-Hill Publishing Company. (1994).

Usiskin, Z., Feldman, C., Davis, S., Mallo, S., Sanders, G., Witonsky, D., Flanders, J., Polonsky, L., Porter, S., & Viktora, S. The University of Chicago School Mathematics Project: Transition Mathematics. (2nd ed.). Glenview, Illinois: Scott Foresman. (1995).

Appendix L
Multiple Intelligence Lesson Plan

Purpose The purpose of this Science activity is to incorporate Cooperative Learning and Multiple Intelligences in a research assignment for the topic, "Biomes (Climate Regions) "

Objectives Students completing this group research report and oral presentation will
- practice library research skills as well as siting correct bibliographical information
- learn to distribute tasks and work well in cooperative groups
- gain knowledge beyond the textbook information about the six different biome regions of the world
- use most, if not all, of the multiple intelligences while completing the assignment

Reading Materials Prentice Hall - General Science - A Voyage of Exploration

Lessons and Activities Preceding
Students will read chapter 22, p 495-511 in the text book, complete section review questions and complimentary worksheets. Videos will be shown on the tundra, desert and grasslands and pictures from each biome. A chart will be completed on each of the six biomes, Deciduous forest, Tropical forest, Coniferous forest, Tundra, Desert, and Grassland.

The Lesson
1) The students will be divided into cooperative groups of 4 or 5. Six cards with pictures of animals will be drawn to determine which biome will be assigned to each group. For example, a lizard might represent the desert biome. **(Visual/spatial)**

2) The writing prompt (attached) will be distributed and explained as well as the grading rubric (attached). Student groups will then be given time to divide up research tasks before going to the library. **(Interpersonal)**

3) Each group will be required to research their assigned biome, write individual reports **(Linguistic),** and give a group oral presentation **(Verbal),** including one audio or visual aid from each group member **(Visual/Spatial).**

4) Research reports should include the following information, explained in more detail on the writing prompt:
- definition of biome, including statistical facts about rainfall, temperature, climate, etc **(Mathematical)**
- creative description of the scenery **(Linguistic)**
- tell adaptations of three common plants and animals **(Logical)**
- tell facts student found interesting while researching **(Intrapersonal)**

5) Audio and Visual aids for presentations might include audio tapes with sounds from the biome, collages, drawings, plants or animals from biome, videos or photographs from vacations taken in biomes **(Bodily/Kinesthetic) (Musical) (Visual/Spatial)**

6) After reports are handed in and presentations are given students will be asked to journal about the biome they would most like to live in and explain why **(Intrapersonal)**

Appendix L cont.

WRITING PROMPT

TOPIC : biomes

Students will be divided into cooperative groups of 4 or 5 and then each group will be assigned a biome. Examples of biomes include : Tundra, Tropical rain forest, Coniferous forest, Deciduous forest, Grasslands, and Desert.

Each group will be required to research their biome, write individual reports, and give a group oral presentation including at least one visual aid.

Research tasks may be distributed among group members but all information obtained outside our text must be sited.

**Individual reports and group presentations must include the following categories:

INTRODUCTION - Introduce the biome with its definition and include its basic characteristics (rainfall, temperature, climate, etc.).

SCENERY DESCRIPTION - visually take us to your assigned biome. Help the reader imagine what it looks like.

COMMON PLANTS - Name three common plants and tell how these are adapted to the environment of that biome. (ex. cacti in the desert)

COMMON ANIMALS - Name three common animals and tell how these are adapted to the environment of the biome.

CONCLUSION - Conclude by sharing a few interesting facts you found about this biome during your research.

Reports must be typed or neatly written in ink. Check for spelling errors in your rough draft (have Mom or Dad help) Good Luck!

** A consolidated bibliography page must be turned in upon completion of the group presentation.

Appendix L cont.

RUBRIC

TOPIC : biomes

INTRODUCTION
- 3: All characteristics of biome clearly and accurately introduced.
- 2: Some characteristics of biome introduced
- 1: Little or no introduction of biome's basic characteristics.

SCENERY DESCRIPTION
- 3: Very adequate use of descriptive imagery to successfully take the reader to the biome.
- 2: Some description to help the reader see the biome.
- 1: Little or no description of the scenery.

COMMON PLANTS
- 3: Three plants listed with environmental adaptations for each explained.
- 2: Two or three plants, some adaptations explained.
- 1: minimal mention of plants and/or adaptations

COMMON ANIMALS
- 3: Three animals listed with environmental adaptations for each explained.
- 2: Two or three animals, some adaptations explained.
- 1: minimal mention of animals and/or adaptations

CONCLUSION
- 3: Is consistent with the introduction and mentions two or more conduding interesting facts.
- 2: Somewhat consistent with the introduction, mentions one interesting fact.
- 1: Not consistent, little or no facts.

Appendix M
Multiple Intelligence Lesson Plan

Purpose: The purpose of this Language Arts lesson is to utilize Cooperative Learning and to use some of the Multiple Intelligences to each the short story, "Zoo."

Objective: Using the science fiction fantasy story, "Zoo", the students will be able to understand the meaning of the literary term "point of view". The students will be able to consider other points of view. They will be able to appreciate vivid verbs and proper nouns. The students will be able to write a response to a prompt demonstrating their knowlege of the term "point of view".

Reading and Writing: Materials-- Prentice-Hall Literature book (seventh grade level)

The students will be paired to read to each other, orally. They will be watching for their new vocabulary words as they read. The vocabulary words and their meanings are listed at the begining of he story. The students task is to write down the vocabulary word and the complete sentence it was found within the text. Next, each pair will create their own sentence using the vocabulary word correctly. The students will also read and locate proper nouns and vivid verbs throughout the story, generating a list. Each student will write in their journal one of the following choices to demonstrate their understanding of "point of view":

1) Imagine you are a visitor to Earth from another planet where people travel by rocket. Describe your first impression of a car!

2) Describe your reaction to humans, if , on your planet, people had eyes in the front and in the back of their heads!

The Lesson: Step1. Use the "Star Wars" sound effects tape as the students are entering the room . Let the students discuss the sounds and try to guess what they are. (10 minutes) MUSICAL INTELLIGENCE

Step2. Place the stem statement on the board, I peered into the little, black, box and to my astonishment I saw...I will then show them the black box and using their imagination they must describe in detail the creature they would see i.e. size, color, shape, characteristics,traits, actions they may observe, what it eats, howit lives etc. (at least one paragraph, 10-15 minutes) SPATIAL INTELLIGENCE

Step3. Begin the story with the students. Give them information about the

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Appendix M cont

author, Edward D. Hoch

Step 4 Discuss the literary term "point of view" Use examples , the movies "Babe", and "Homeward Bound", and the previous story read, Ransome of Red Chief". Also "Parade Magazine" (Sept. 1996) section on Fresh Voices. (Read and discuss, 15-20 minutes)

Step5 Group the students into pairs to read the story to each other and look for vocabulary words. They will do their writing and discuss the story. INTERPERSONAL INTELLIGENCE

Step 6. Teacher reviews the story with the class, pointing out the important details. Then they will be given a short quiz over the material. INTRAPERSONAL INTELLIGENCE

Step 7 Introduce vivid verbs and proper nouns. Form groups of four and have the students brainstorm as many verbs as they can in two minutes. Do the same for proper nouns. Share with the class. INTERPERSONAL INTELLIGENCE

Step8. Complete two work sheets individually. One lesson is on vivid verbs and the other on proper nouns. (Use for homework if time is short) INTRAPERSONAL INTELLIGENCE

Step 9. Journal writing -- Select one of thee two choices to write about (mentioned in the Reading and Writing section). Do in class. At least 1 to 1 1/2 pages. LINGUISTIC INTLLIGENCE

Step 10. Review for the test over the story and also review literary term and grammar. Following the test show the students what is in the little, black, box.

Step 11. Students will write a reflection on what they enjoyed most about this story. LINGUISTIC INTELLIGENCE

(4-5 Class periods needed to complete this story)

LESSON PLAN ON GOAL SETTING

LESSON OBJECTIVE: Students will be able to realize that without guidance and direction a desired goal is difficult to attain, by the completion of the lesson.

TIME SPAN: Two class periods for Algebra
Four one-half hour sessions for Prime Time

MATERIALS: CEC Junior High Student Handbook, Michael Jordan book I Can't Accept Not Trying, Scrambled Eggs Activity from book 201 Strategies for Teachers Advisors

I. Clues Activity

A. Prior to class, the teacher should select an obscure object in the classroom and have a list of clues prepared which will lead a student to that object. (i.e. color, shape, location, objects use, etc.)

B. Choose a student and ask them to get you the object you need and give them one of the clues, preferably a clue that fits many objects in the room and is rather vague. Teacher acts agitated when the student chooses the wrong item.

C. Continue selecting students, giving one additional clue each time until the correct object is chosen.

D. Discuss the activity and state the intended objective.

II. Read Chapter 1 of Michael Jordan's book I Can't Accept Not Trying pages 2-6. Discuss student reactions to the chapter.

III. Discuss the meaning of "If I Plan to Learn, I Must Learn to Plan", found on page 2 of the Chillicothe Junior High Handbook.

IV. Conduct activities 2,3,4 from the Teacher Handbook on page 7 and the Student Handbook on page 2.

ACTIVITY 2

Explain and discuss with the students the concept of goal setting. "Goal setting is the art of figuring out what you will do, why you will do it, and how you can do it most effectively."

ACTIVITY 3

Give examples of goals.

1). To save enough money for a mountain bike by August 1.
2). To complete an evening course in baby-sitting by September 1.
3). To lose ten pounds by Christmas.

ACTIVITY 4

Discuss with the students what makes a good goal.

1.) Well-set goals are attainable and realistic.
2.) Well-set goals are specific and spell out an aim.
3.) Well-set goals include a written action plan.
4.) Well-set goals follow a built-in time frame.

V. Conduct "Scrambled Eggs Activity" (Class or Group Activity)

A. Hand out 4 index cards to each student or to a group of four students.
B. The students are to write a non-academic personal goal (not too personal) on one of the cards. If a group they collaborate and choose a group goal.
C. The remaining cards are to be used to list 3 steps needed to reach that goal, one on each card.
D. Collect the cards and shuffle them. Give 4 shuffled cards (not their own) to each person in the class or exchange them with another group.
E. The goal is to place the cards back together, listing the personal goal and the 3 steps in order.

VI. Discuss the goals that would be stated for a particular class. Some examples would be: I will complete all my work.
I will be able to improve on my problem solving.
I will improve on my weekly Orthography tests.
I will be able to work cooperatively in my group.

VII. "Student Academic Goals" sheet is to be handed out and goals listed for a particular class beginning with round 1.

VIII. Explain the research plan and hand out parent information packet.

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Student Academic Goals

Name: _____

Round # ___

Goals:

Round # ___

Goals:

Round # ___

Goals:

Appendix P
Example of Student Goals

Student Academic Goals

Name: _____

Round # 1

Goals:

1. To learn the problem solving strategy + apply it on m. √+
2. To write down my assignments in my red book. √
3. To get an A on my midterm. √-

Round # 2

Goals:

1.) Get an A on my report card. √-
2.) Study for tests. √-
3.) Write my assignments down in red book all the time. √+

Round # 3 Nov. 6-15

Goals:

1) Try to get my daily review grade up to 80% or higher. √-
2.) Keep my homework grades above 80%. √

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Appendix Q
Student Postintervention Survey

STUDENT POSTINTERVENTION SURVEY

1 In your opinion, how important is homework in your learning?
   a very important
   b somewhat important
   c not very important
   d waste of time

2 Approximately how much time did you devote to homework after school hours?
   a 15 minutes - 1 hour
   b between 1 - 2 hours
   c over 2 hours
   d seldom or never did homework

3 In a nine weeks grading period, approximately how many times did you not do your homework?
   a always turned in my homework
   b didn't do 1 - 3 times
   c didn't do 4 - 6 times
   d why do homework?

4 If you received a detention/Saturday detention for not doing homework, what did the detention mean to you?
   a no big deal
   b I'm in big trouble at home
   c oops - I'd better get my act together
   d I never got a detention

5 How much did the school homework policy of receiving detentions for incomplete assignments encourage your completion of homework?
   a very little - I always do my homework anyway
   b very much - It made me always do my homework to avoid the detentions
   c somewhat - I received after school detentions but didn't want to get a Saturday detention
   d not at all - I didn't care if I received after school detentions or Saturday detentions for not completing homework

6 How many times did you actively participate in a class discussion?
   a 1 - 3 times for each class
   b 4 - 5 times for each class
   c 6 or more times for each class
   d seldom or never participate

7 The goals I set concerned (circle all that apply)
- a homework
- b quizzes
- c tests
- d overall grade
- e base score
- f improvement points

8 In your opinion goal setting was
- a very helpful
- b somewhat helpful
- c a little helpful
- d a waste of time

9 I set goals because
- a they would help improve my grade
- b they focus my attention on improving myself
- c the teacher told me to

10 I would prefer to set goals
- a weekly
- b every two weeks
- c every chapter

11 How much did graphing your scores affect your effort?
- a very much - I didn't want to go below my baseline score
- b somewhat - It made me work harder to try to meet or beat my baseline score
- c not at all - I don't care what happened to my baseline score or to make the graph

12 Did seeing your scores on a graph have an affect on your effort?
- a very much - I liked seeing my scores at or above my baseline score
- b somewhat - I didn't like my graph to go below my baseline score
- c not at all - didn't care about what my graph looked like

13 Did earning improvement points affect your effort?
- a very much - I like getting extra credit
- b somewhat - I didn't earn as many points as I could have if I had tried harder
- c not at all - Who cares about improvement points?

14 Would you recommend continuing the goal setting - improvement point system to next year's class?
- a Yes, please list what improvement(s) can be made
- b No, please explain why not

Appendix R
Students Postintervention Survey Results

STUDENT POSTINTERVENTION SURVEY

1 In your opinion, how important is homework in your learning?
- a very important 46
- b somewhat important 73
- c not very important 17
- d waste of time 7

2 Approximately how much time did you devote to homework after school hours?
- a 15 minutes - 1 hour 84
- b between 1 - 2 hours 36
- c over 2 hours 7
- d seldom or never did homework 18

3 In a nine weeks grading period, approximately how many times did you not do your homework?
- a always turned in my homework 52
- b didn't do 1 - 3 times 68
- c didn't do 4 - 6 times 18
- d why do homework? 4
  - a lot 1

4 If you received a detention/Saturday detention for not doing homework, what did the detention mean to you?
- a no big deal 17
- b I'm in big trouble at home 13
- c oops - I'd better get my act together 29
- d I never got a detention 84

5 How much did the school homework policy of receiving detentions for incomplete assignments encourage your completion of homework?
- a very little - I always do my homework anyway 77
- b very much - It made me always do my homework to avoid the detentions 35
- c somewhat - I received after school detentions but didn't want to get a Saturday detention 18
- d not at all - I didn't care if I received after school detentions or Saturday detentions for not completing homework 11

6 How many times did you actively participate in a class discussion?
- a 1 - 3 times for each class 70
- b 4 - 5 times for each class 28
- c 6 or more times for each class 22
- d seldom or never participate 23

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Appendix R cont

7 The goals I set concerned (circle all that apply)
- a homework 90
- b quizzes 97
- c tests 110
- d overall grade 103
- e base score 54
- f improvement points 34

8 In your opinion goal setting was
- a very helpful 20
- b somewhat helpful 41
- c a little helpful 40
- d a waste of time 12

9 I set goals because . . .
- a they would help improve my grade 26
- b they focus my attention on improving myself 47
- c the teacher told me to 70

10 I would prefer to set goals
- a weekly 21
- b every two weeks 26
- c every chapter 87

never 5
no answer 3

11 How much did graphing your scores affect your effort?
- a very much - I didn't want to go below my baseline score 50
- b somewhat - It made me work harder to try to meet or beat my baseline score 82
- c not at all - I don't care what happened to my baseline score or to make the graph 11

12 Did seeing your scores on a graph have an affect on your effort?
- a very much - I liked seeing my scores at or above my baseline score 55
- b somewhat - I didn't like my graph to go below my baseline score 76
- c not at all - didn't care about what my graph looked like 12

13 Did earning improvement points affect your effort?
- a very much - I like getting extra credit 53
- b somewhat - I didn't earn as many points as I could have if I had tried harder 69
- c not at all - Who cares about improvement points? 16

14 Would you recommend continuing the goal setting - improvement point system to next year's class?
- a Yes, please list what improvement(s) can be made 108
- b No, please explain why not 34

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Appendix R cont

Student Postintervention Survey Comments

Comments with "Yes" response:

a) The system helped students' grades (32 responses)
b) Liked the improvement points but did not like setting goals (3 responses)
c) Homework policy helps get homework done (2 responses)
d) More explanation needed about the base score (1 response)
e) Students should file their own papers (1 response)
f) Teachers should check the goals (2 responses)
g) Liked receiving the extra credit points (5 responses)
h) Goals make you know what you want to do and remind you to do it (4 responses)
i) Goals need to be set more often (2 responses)

Comments with "No" response:

a) Waste of time (9 responses)
b) Takes class time away from learning (5 responses)
c) Don't like setting goals (5 responses)
d) Students don't really care (3 responses)

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Appendix S
Incomplete Homework Contract for Algebra

INCOMPLETE WORK AGREEMENT

Name: _____ Date: _____

Homework assignment not completed on time _____
_____

Reason not completed _____
_____
_____
_____

I _____ promise to turn this incomplete assignment in on the next school day which is (date) _____ at class time with the understanding that it will be graded based on percent correct and only be given 75% of what it could have received. If I fail to do this, I will receive a zero for the assignment and the penalty stated on the school's homework policy. I have shown this form to my parent/guardian and will return this form signed by him/her **attached** to the completed assignment.

Student signature _____

Parent/Guardian signature _____

Appendix T
Seventh Grade Incomplete Homework Contract

INCOMPLETE WORK AGREEMENT

Name: _____ Date: _____

Homework assignment not completed on time _____
_____

Reason not completed _____
_____
_____
_____

I _____ promise to turn this incomplete assignment and this contract in by 7:30 A.M. the next school day which is (date) _____ with the understanding that **10** points will be deducted from the score. If I turn in the incomplete assignment but fail to turn in the contract, I will have **20** points deducted from the homework score. If I do not turn in either the contract or the incomplete assignment, I will receive a **zero**. The penalty for receiving zeros will be followed as stated in the homework policy. I have shown this form to my parent/guardian and will return this form signed by him/her **attached** to the completed assignment.

Student signature _____

Parent/Guardian signature _____

Appendix U
First Semester Grades

First Semester Grades

Subject: 8th Algebra

Student	1st	2nd
	79	53
	42	25
	95	87
	93	95
	79	74
	102	104
	83	77
	99	106
	64	60
	77	82
	56	50
	97	95
	100	93
	79	88
	81	86
	97	91
	62	75
	96	104
	102	103
	105	106
	102	95
	64	27
	76	77
	77	65
	102	100
	64	46
	92	92
	92	92
	88	86
	87	89
	100	102
	95	99
	94	86
	99	99
	97	90
	98	92
	86	81
	59	64
	103	105
	69	79

Student	1st	2nd
	93	85
	97	104
	98	96
	101	106
	50	43
	91	97
	37	26
	97	99
	97	93
	100	99
	98	102
	101	99
	98	103
	50	49
	90	76
	93	92
	79	70
	83	84
	88	87
	66	62
	99	100
	54	37
	93	93
	91	97
	92	100
	95	94
	53	60
	101	98
	58	26
	95	103
	57	63
	76	66
	91	91
	77	78
	90	93

First Semester Grades

Subject: Language Arts

Student	1st	2nd
	85	77
	67	67
	43	X
	79	80
	85	83
	68	72
	78	78
	82	82
	60	54
	61	54
	91	90
	79	70
	73	74
	81	85
	84	83
	85	82
	71	70
	80	76
	83	76
	77	78
	76	70
	80	80
	87	85
	81	82
	63	51
	76	79
	78	71
	79	76
	85	82
	93	89
	78	79
	93	86
	76	73
	89	90
	79	78
	78	71
	72	69
	88	86
	63	62
	62	58

Student	1st	2nd
	59	61
	80	81
	79	75
	76	74
	62	60
	57	69
	60	62
	82	80
	95	91
	81	82
	85	84
	63	44
	82	80
	89	78
	86	79
	59	60
	67	72
	70	66
	96	93
	94	85
	69	63
	66	73
	66	62
	71	74
	93	92
	82	85
	70	72
	69	61
	87	87
	66	73
	77	73

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First Semester Grades

Subject: 7 Math

Student	1st	2nd
	A	A-
	D+	C
	F	Expelled
	B-	B-
	B	B-
	D	C-
	C+	B+
	C	C-
	D	D-
	C-	F
	A	A
	D-	D-
	C-	C
	A-	A
	B	B-
	A	A
	C-	B-
	C	C+
	D+	C+
	C-	C+
	D-	C-
	C	D-
	B+	A
	B	B+
	D-	D-
	B	B+
	C+	C+
	C-	C+
	B	C
	A	B
	A	B
	C	B-
	B-	B
	A-	C
	B	C+
	D+	D-
	A	A
	C	D+
	F	F
	D	C

Student	1st	2nd
	B	B
	B	B-
	C+	B
	C-	F
	C	D
	C	C-
	A	B
	A	A
	B	B
	B	A-
	B	A
	F	F
	B-	C+
	B	C
	B	B
	F	D-
	D	C+
	C-	C-
	A	A
	B+	B
	B	C
	D-	B
	C+	D-
	D+	B-
	A	A
	D+	D+
	D+	C
	D-	C-
	A	C+
	C+	B-
	B	C+

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Appendix U cont.

First Semester Grades

Subject: 7th Science.

Student	1st	2nd
	51	47
	91	81
	90	82
	92	83
	68	59
	72	77
	76	77
	97	95
	96	92
	67	64
	81	73
	67	56
	78	78
	96	94
	80	68
	80	78
	73	69
	94	92
	84	78
	79	82
	96	90
	91	88
	76	73
	25	—
	90	91
	82	85
	63	68
	89	85
	81	86
	74	66
	65	67
	95	95
	68	81
	87	82
	95	87
	93	91
	91	94
	89	85
	82	78
	85	77

Student	1st	2nd
	70	66
	91	88
	93	89
	99	88
	75	64
	84	78
	86	83
	94	81
	92	88
	94	90
	83	78
	98	97
	81	70
	90	90
	81	73
	85	83
	67	72
	93	87
	70	64
	68	61
	60	61
	89	81
	87	82
	84	68
	50	54
	69	63
	71	66
	95	89
	99	96
	89	90
	93	89

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Appendix V
First Semester Contracts

First Semester Contracts Subject: 8th Algebra

Student	Contracts Taken		Contracts Turned in		Number of Zeros	
	1st	2nd	1st	2nd	1st	2nd
	0	3	0	1	0	2
	8	15	1	2	7	13
	0	1	0	0	0	1
	0	1	0	1	0	0
	0	1	0	1	0	0
	8	12	5	5	3	7
	2	1	1	0	1	1
	0	5	0	1	0	4
	2	2	2	2	0	0
	0	2	0	2	0	0
	0	1	0	1	0	0
	0	1	0	0	0	1
	1	0	1	0	0	0
	5	1	2	0	3	1
	0	1	0	1	0	0
	2	0	2	0	0	0
	0	1	0	1	0	0
	4	11	4	2	0	9
	3	4	1	1	2	3
	1	1	1	0	0	1
	1	1	1	1	0	0
	4	10	1	0	3	10
	1	2	1	1	0	1
	0	2	0	0	0	2
	0	2	0	1	0	1
	2	2	1	1	1	1
	1	2	1	1	0	1
	1	2	1	2	0	0
	0	1	0	1	0	0
	5	5	2	2	3	3
	1	0	1	0	0	0
	7	4	3	3	4	1
	1	0	1	0	0	0
	4	5	1	2	3	3
	x	2	x	0	x	2
	11	13	4	4	7	9
	1	3	1	2	0	1
	1	2	1	1	0	1
	9	10	0	2	9	8

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First Semester Contracts Subject: 8th Algebra

Student	Contracts Taken 1st	Contracts Taken 2nd	Contracts Turned in 1st	Contracts Turned in 2nd	Number of Zeros 1st	Number of Zeros 2nd
	1	1	1	1	0	0
	0	1	0	0	0	1
	X	1	X	1	X	0
	2	1	0	1	2	0
	3	4	3	3	0	1
	2	1	2	0	0	1
	1	3	0	2	1	1
	1	1	1	1	0	0
	1	4	1	4	0	0
	5	2	0	1	5	1
	1	1	1	0	0	1
	8	9	2	5	6	4
	1	0	1	0	0	0
	6	6	0	3	6	3
	3	9	1	2	2	7
	9	5	1	1	8	4
	6	6	1	3	5	3
	1	1	1	1	0	0
	8	X	1	X	7	X
	1	2	0	0	1	2
	4	3	2	3	2	0
	2	4	2	3	0	1

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First Semester Contracts Subject: Language Arts

Student	Contracts Taken		Contracts Turned in		Number of Zeros	
	1st	2nd	1st	2nd	1st	2nd
	1				1	
	3	5			3	5
	1	2			1	2
	2	5	2	3		2
	1	2	1	2		
		2		1		1
		2		1		1
		2		1		1
		1		1		
		1		1		
		1				1
		2		2		
		1		1		
		1		1		
	2		2			
	1		1			
	1	1	1	1		
	2	3	1	2	1	1
	1	5	1	3		1
	1	1	1	1		
	1	4		1	1	3
	1		1			
	3	2	2	1	1	2
	1		1			
	1		1			
		1				1
	2					2
	1		1			
		1		1		
		1				1
		1		1		
	2	1	2	1	1	8
	2	9	1	1		
	2	5	2	5		1
	1	2	1	1		
	1		1			
		7		6		1
	5	1			5	1
		2		121		2

Appendix V cont.

First Semester Contracts Subject: Language Arts

Student	Contracts Taken		Contracts Turned in		Number of Zeros	
	1st	2nd	1st	2nd	1st	2nd
		2		2		
		2		1		1

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Appendix V cont.

First Semester Contracts Subject: 7 Math

Student	Contracts Taken		Contracts Turned in		Number of Zeros	
	1st	2nd	1st	2nd	1st	2nd
	2		0		2	
	6	Expelled	1	Expelled	5	Expelled
	1	3	1	2	0	1
	1		1		0	
	1		1		0	
	1	4	1	1	0	3
	4	3	3	1	1	2
	1	1	1	1	0	0
	3	3	3	3	0	0
		1		1		0
	1		1		0	
	1	1	1	1	0	0
	4	3	4	1	0	2
		1		1		0
	1	1	1	0	0	1
	3	10	1	5	2	5
	1		1		0	
	3		3		0	
	1		1		0	
	1		1		0	
	1		1		0	
		1		1		0
	5	7	3	4	2	3
	3	10	1	3	2	7
	2	2	2	0	0	2
	3	7	0	2	3	5
	3		2		1	
	2	5	1	4	1	1
		1		1		0
	1		0		1	
	6	11	1	4	5	7
	5	10	5	6	0	4
	1		1		0	
	7	4	2	2	5	2
	1		1		0	
	1		1		0	
		1		1		0
	1		1		0	
		4		3		1

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Appendix V cont.

First Semester Contracts Subject: Science - 7th grade

Student	Contracts Taken		Contracts Turned in		Number of Zeros	
	1st	2nd	1st	2nd	1st	2nd
	3	1	1		2	1
	5	2			5	2
	5		3		2	
	1	1		1	1	
	2	1			2	1
	2	3		1	2	2
		1		1		
		1		1		
	1				1	
	1				1	
	1				1	
	1				1	
	2	1	1		1	1
	1	1	1			1
	1		1			
	3	3	1		2	3
	3	2	1		2	2
	5	4	1	1	4	3
	7	2			7	2
	1	1		1	1	
	2	1			2	1
	1	2		1	1	1
	1	2		1	1	1
		1				1
		1				1
	2	2	2			2
	3	1			3	1
	1		1			
	1	1	1	1		
	3	2			3	2
	4	2	1	1	3	1
	2		2			
	4	2	1	1	3	1
	1		1			
	2	6	1	1	1	5
	1		1			
	2	1	1	1	1	
	1	2		1	1	1
	3	4			3	4

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Student Base Score, Quiz/Test Score and Improvement Point Record

Round #	Quiz:			Quiz:			Quiz:			Imp. Pt.	New Base
Student	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score

8 Algebra

Appendix X

Improvement Point Record Form Results

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 1

Quiz: 1-1 to 1-3			Quiz: 1-5 to 1-8			Quiz: Ch. 1 Test			Imp. Pt.	New Base
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score
69	48	0	69	70	10	69	67	10	7	64
49	51	10	49	39	0	49	20	0	3	40
72	64	0	72	92	30	72	63	0	10	73
82	72	0	82	77	0	82	82	10	3	78
75	67	0	75	57	0	75	66	0	0	66
89	99	30	89	88	10	89	91	10	17	92
62	58	10	62	81	30	62	78	30	23	70
83	91	20	83	94	30	83	89	20	23	89
59	71	30	59	71	30	59	62	10	23	66
60	61	10	60	59	10	60	57	10	7	59
59	40	0	59	27	0	59	40	0	0	42
85	96	30	85	90	20	85	92	20	17	91
69	99	30	69	86	30	69	89	30	30	86
72	60	0	72	70	10	72	51	0	3	63
55	48	0	55	70	30	55	71	30	20	61
82	68	0	82	90	20	82	90	20	13	83
55	41	0	55	23	0	55	58	10	3	44
75	62	0	75	77	10	75	83	20	10	74
85	97	30	85	97	30	85	94	20	27	93
89	98	20	89	104	30	89	94	20	23	96
82	99	30	82	90	20	82	99	30	27	93
55	44	0	55	47	0	55	58	10	3	51
62	53	0	62	51	0	62	37	0	0	51
62	67	20	62	78	30	62	63	10	20	68
79	92	30	79	84	20	79	99	30	27	89
49	52	10	49	33	0	49	55	20	10	47
79	76	10	79	79	10	79	81	10	10	79
79	68	0	79	88	20	79	91	30	17	82
75	74	10	75	76	10	75	63	0	7	72
75	64	0	75	60	0	75	73	10	3	68

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 1

Quiz: 1-1 to 1-3			Quiz: 1-5 to 1-8			Quiz: Ch. 1 Test			Imp. Pt.	New Base
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score
85	100	30	85	99	30	85	87	10	23	93
82	87	20	82	98	30	82	96	30	27	91
82	96	30	82	96	30	82	89	20	27	91
89	90	10	89	99	30	89	100	30	23	95
82	71	0	82	95	30	82	90	20	17	85
72	97	30	72	84	30	72	87	30	30	85
69	79	30	69	75	20	69	77	20	23	75
72	55	0	72	48	0	72	61	0	0	59
89	99	30	89	98	20	89	99	30	27	96
72	48	0	72	58	0	72	78	20	7	64
72	46	0	72	83	30	72	87	30	20	72
89	84	0	89	98	20	89	99	30	17	93
89	94	20	89	104	30	89	100	30	23	96
89	88	10	89	95	20	89	92	10	13	91
55	47	0	55	24	0	55	37	0	0	41
79	95	30	79	93	30	79	76	10	23	86
55	32	0	55	39	0	55	47	0	0	43
75	94	30	75	100	30	75	92	30	30	90
69	82	30	69	92	30	69	99	30	30	86
49	43	0	49	32	0	49	20	0	0	36
89	82	0	89	95	20	89	96	20	13	91
82	91	20	82	82	10	82	95	30	20	88
89	92	10	89	103	30	89	99	30	23	96
89	91	10	89	79	0	89	91	10	7	88
55	31	0	55	21	0	55	28	0	0	34
69	58	0	69	91	30	69	100	30	20	80
82	95	30	82	97	30	82	91	20	27	91
79	52	0	79	78	10	79	82	10	7	73
72	71	10	72	46	0	72	55	0	30	61

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Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 1

Quiz: 1-1 to 1-3			Quiz: 1-5 to 1-8			Quiz: Ch. 1 Test			Imp. Pt.	New Base
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score
72	61	0	72	86	30	72	79	20	17	75
59	76	30	59	72	30	59	57	10	23	66
89	98	20	89	84	0	89	93	10	10	91
55	59	10	55	59	10	55	56	10	10	57
72	65	0	72	78	20	72	82	30	17	74
85	75	0	85	77	0	85	72	0	0	77
85	61	0	85	82	10	85	84	10	7	78
75	74	10	75	90	30	75	82	20	20	80
60	48	0	60	28	0	60	29	0	0	48
79	82	10	79	98	30	79	95	30	23	89
55	45	0	55	54	10	55	52	10	7	52
49	42	0	49	38	0	49	32	0	0	31
79	87	20	79	64	0	79	90	30	17	80
55	55	10	55	45	0	55	38	0	3	48
65	52	0	65	33	0	65	47	0	0	49
49	31	0	49	0	0	49	0	0	0	20
79	64	0	79	90	30	79	82	10	13	79
75	50	0	75	69	0	75	74	10	3	67
79	71	0	79	81	10	79	88	20	10	80

8 Algebra

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 2

Quiz: 2-1 to 2-4			Quiz: 2-5 to 2-8			Quiz: Ch. 2 Test			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
64	62	10	64	55	0	64	44	0	3	56	D
40	45	20	40	3	0	40	29	0	7	29	D
73	78	20	73	91	30	73	94	30	27	84	U
[redacted]											
66	35	0	66	44	0	66	64	10	3	52	D
[redacted]											
70	56	0	70	38	0	70	48	0	0	53	D
89	86	10	89	85	10	89	94	20	13	89	S
66	61	0	66	18	0	66	50	0	0	49	D
60	70	30	60	60	10	60	69	20	20	65	U
42	26	0	42	0	0	42	37	0	0	26	D
91	89	10	91	95	20	91	79	0	10	89	D
86	94	20	86	89	10	86	96	30	20	91	U
[redacted]											
61	69	20	61	42	0	61	45	0	7	54	D
83	76	0	83	97	30	83	90	20	17	87	U
44	56	30	44	15	0	44	42	10	13	39	D
74	84	30	74	85	30	74	86	30	30	82	U
[redacted]											
93	81	0	93	101	30	93	94	10	13	92	D
[redacted]											
51	58	20	51	42	0	51	86	30	17	59	U
68	63	0	68	31	0	68	48	0	0	53	D
89	91	10	89	110	30	89	92	10	17	96	U
[redacted]											
79	75	10	79	90	30	79	75	10	17	80	U
[redacted]											
72	70	10	72	64	0	72	83	30	13	72	S
[redacted]											

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8 Algebra

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 2

Quiz: 2-1 to 2-4			Quiz: 2-5 to 2-8			Quiz: Ch. 2 Test			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
[redacted]											
91	77	0	91	95	20	91	93	10	10	89	D
91	85	0	91	85	0	91	67	0	0	82	D
[redacted]											
[redacted]											
85	83	10	85	83	10	85	89	10	10	85	S
75	67	0	75	58	0	75	65	0	0	66	D
[redacted]											
[redacted]											
64	70	20	64	49	0	64	56	0	7	60	D
72	70	10	72	70	10	72	71	10	10	71	D
93	80	0	93	85	0	93	91	10	3	87	D
96	95	20	96	85	0	96	80	0	7	89	D
91	90	10	91	100	30	91	97	20	20	95	U
41	20	0	41	22	0	41	31	0	0	29	D
[redacted]											
43	15	0	43	10	0	43	16	0	0	21	D
90	96	20	90	94	10	90	88	10	13	92	U
[redacted]											
36	11	0	36	7	0	36	18	0	0	18	D
91	99	20	91	89	10	91	97	20	17	94	U
88	80	0	88	60	0	88	90	10	3	80	D
96	85	0	96	93	10	96	91	0	3	91	D
[redacted]											
34	22	0	34	20	0	34	12	0	0	22	D
[redacted]											
91	77	0	91	67	0	91	93	10	3	82	D
73	48	0	73	41	0	73	52	0	0	54	D
[redacted]											
75	75	10	75	61	0	75	65	0	3	69	D

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8 Algebra

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 2

Quiz: 2-1 to 2-4			Quiz: 2-5 to 2-8			Quiz: Ch. 2 Test			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
[redacted]											
91	95	20	91	79	0	91	96	20	13	90	D
[redacted]											
[redacted]											
[redacted]											
78	63	0	78	76	10	78	80	10	7	74	D
80	81	10	80	75	0	80	85	20	10	80	S
48	35	0	48	5	0	48	39	0	0	32	D
[redacted]											
[redacted]											
31	20	0	31	20	0	31	63	30	10	34	U
80	85	20	80	72	0	80	82	10	10	80	S
48	27	0	48	27	0	48	59	30	10	40	D
49	51	10	49	20	0	49	71	30	13	48	D
20	0	0	20	2	0	20	0	0	0	6	D
79	84	20	79	84	20	79	73	0	13	80	U
67	69	10	67	29	0	67	63	10	7	57	D
[redacted]											

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Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 3

Quiz: Ch. 3 Test			Quiz: Prop. Quiz			Quiz:			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
56	27	0	56	60	10	56			5	48	D
29	29	10	29	87	30	29			20	48	U
84	100	30	84	40	0	84			15	75	D
80	78	10	80	80	10	80			10	77	D
52	88	30	52	60	20	52			25	67	U
95	100	30	95	60	0	95			15	95	D
53	0	0	53	100	30	53			15	51	D
89	100	30	89	100	30	89			30	96	U
49	57	20	49	80	30	49			25	62	U
65	78	30	65	40	0	65			15	61	D
26	14	0	26	27	10	26			5	22	D
89	92	10	89	87	10	89			10	89	—
91	98	20	91	73	0	91			10	87	D
50	93	30	50	87	30	50			30	77	U
54	89	30	54	27	0	54			15	57	U
87	0	0	87	100	30	87			15	62	U
39	62	30	39	53	30	39			30	51	U
82	98	30	82	100	30	82			30	93	U
94	99	20	94	87	0	94			10	93	D
98	100	30	98	100	30	98			30	99	U
92	93	10	92	80	0	92			5	88	D
33	24	0	33	33	10	33			5	30	D
59	74	30	59	73	30	59			30	69	U
53	57	10	53	27	0	53			5	46	D
96	99	20	96	60	0	96			10	85	D
45	26	0	45	47	10	45			5	39	D
80	94	30	80	67	0	80			15	80	—
70	93	30	70	73	10	70			20	79	U
72	98	30	72	33	0	72			15	64	D
67	95	30	67	60	0	67			15	74	U

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8 Algebra

Appendix X cont.

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 3

Quiz: Ch. 3 Test			Quiz: Prop. Quiz			Quiz:			Imp. Pt.	New Base	
Base	Quiz	Imp. pts	Base	Quiz	Imp. pts	Base	Quiz	Imp. pts	Average	Score	
87	98	30	87	100	30	87			30	95	U
89	98	20	89	100	30	89			25	96	U
82	98	30	82	47	0	82			15	76	D
90	96	20	90	100	30	90			25	95	U
87	84	10	87	100	30	87			20	90	U
85	65	0	85	80	0	85			0	77	D
66	91	30	66	33	0	66			15	63	D
42	19	0	42	47	20	42			10	36	D
98	100	30	98	100	30	98			30	99	U
60	82	30	60	53	0	60			15	65	U
71	91	30	71	80	20	71			25	81	U
87	100	30	87	100	30	87			30	96	U
89	98	20	89	73	0	89			10	87	D
95	100	30	95	100	30	95			30	98	U
29	37	20	29	20	0	29			10	29	—
78	98	30	78	87	20	78			25	88	U
40	14	0	40	13	0	40			0	22	D
21	10	0	21	20	10	21			5	17	D
92	100	30	92	100	30	92			30	97	U
87	98	30	87	80	0	87			15	88	U
18	8	0	18	20	10	18			5	15	D
94	98	20	94	87	0	94			10	93	D
80	78	10	80	100	30	80			20	86	U
91	98	20	91	87	0	91			10	92	U
80	92	30	80	100	30	80			30	91	U
91	96	20	91	100	30	91			25	96	U
22	19	10	22	47	30	22			20	29	U
82	98	30	82	40	0	82			15	73	D
82	89	20	82	100	30	82			25	90	U
54	85	30	54	20	0	54			15	53	D

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8 Algebra

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 3

Quiz: Ch. 3 Test			Quiz: Prop. Quiz 2			Quiz:			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
61	39	0	61	73	30	61			15	58	D
69	94	30	69	73	10	69			20	79	U
49	36	0	49	33	0	49			0	39	D
90	100	30	90	87	10	90			20	92	U
48	40	0	48	40	0	48			0	43	D
78	100	30	78	73	0	78			15	84	U
78	94	30	78	100	30	78			30	91	U
74	100	30	74	100	30	74			30	91	U
80	95	30	80	87	20	80			25	87	U
32	68	30	32	20	0	32			15	40	U
92	100	30	92	87	0	92			15	93	U
34	31	10	34	20	0	34			5	27	D
34	20	0	34	0	0	34			0	18	D
80	100	30	80	100	30	80			30	93	U
40	46	30	40	27	0	40			15	44	U
48	34	0	48	47	10	48			5	43	D
80	89	20	80	93	30	80			25	87	U
57	64	20	57	87	30	57			25	69	U
73	95	30	73	87	30	73			30	95	U

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8 Algebra

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 4

Quiz: 4.1 & 4.2			Quiz: 4.3, 4.6, 4.7			Quiz: Ch. 4 Test			Imp Pt Average	New Base Score		
Base	Quiz	Imp pts	Base	Quiz	Imp pts	Base	Quiz	Imp pts				
48	0	0	48	15	0	48	32	0	0	24	D	49
48	16	0	48	0	0	48	2	0	0	17	D	49
75	65	0	75	65	0	75	86	30	10	73	D	79
79	96	30	79	56	0	79	101	30	20	83	U	89
67	76	20	67	55	0	67	15	0	7	53	D	69
85	108	30	85	96	30	85	104	30	30	98	U	89
51	87	30	51	52	10	51	44	0	13	58	U	69
96	106	30	96	93	10	96	102	30	23	99	U	89
62	40	0	62	35	0	62	52	0	0	47	D	55
61	97	30	61	62	10	61	77	30	23	74	U	75
22	13	10	22	2	0	22	9	0	3	13	D	49
89	85	10	89	79	0	89	106	30	13	90	U	89
87	94	20	87	83	10	87	101	30	20	93	U	89
77	57	0	77	66	0	77	56	0	0	64	D	82
57	93	30	57	63	20	57	73	30	27	72	U	79
62	90	30	62	83	30	62	101	30	30	88	U	85
51	71	30	51	48	10	51	47	10	17	54	U	69
93	102	30	93	96	20	93	101	30	27	98	U	89
93	102	30	93	99	20	93	105	30	27	100	U	89
99	104	30	99	91	0	99	106	30	20	100	U	89
88	82	0	88	97	20	88	91	0	7	87	D	89
30	1	0	30	17	0	30	13	0	0	15	D	49
69	73	10	69	42	0	69	58	0	3	61	D	69
46	11	0	46	40	10	46	29	0	3	34	D	59
85	100	30	85	89	10	85	97	30	23	93	U	89
39	36	10	39	37	10	39	42	10	10	39	S	49
80	95	30	80	64	0	80	82	10	10	79	D	85
79	105	30	79	61	0	79	78	10	13	81	U	85
64	92	30	64	77	30	64	92	30	30	82	U	79 Ave.
74	99	30	74	73	10	74	59	0	13	76	U	82

8 Algebra

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 1

Quiz: 1.1 to 1.4			Quiz: 4.5, 4.6, 4.7			Quiz: Ch. 4 Test			Imp Pt Average	New Base Score	
Base	Quiz	Imp pts	Base	Quiz	Imp pts	Base	Quiz	Imp pts			
95	98	20	95	85	0	95	105	30	17	96	M 89
96	96	10	96	92	10	96	103	30	17	97	M 89
76	0	0	76	98	30	76	83	20	17	64	D 79
95	97	20	95	85	0	95	99	20	13	94	D 89
90	85	0	90	68	0	90	89	10	3	83	D 85
77	98	30	77	92	30	77	95	30	30	91	M 85
63	102	30	63	30	0	63	60	10	13	64	M 75
36	76	30	36	37	10	36	59	30	23	52	M ~~59~~
99	101	30	99	99	20	99	104	30	27	100	M 89
65	73	20	65	73	20	65	62	10	17	68	M 72
81	40	0	81	48	0	81	45	0	0	55	D 79
96	101	30	96	87	0	96	101	30	20	96	S 89
87	97	30	87	80	0	87	98	30	20	91	M 89
98	103	30	98	97	30	98	107	30	27	100	M 89
29	4	0	29	11	0	29	21	0	0	16	D 49
88	102	30	88	76	0	88	65	0	10	83	D 89
22	72	30	22	23	10	22	33	30	23	33	M 49
17	34	30	17	3	0	17	7	0	10	15	D 49
97	102	30	97	92	0	97	100	30	20	98	M 89
88	105	30	88	78	0	88	93	20	17	91	M 89
15	1	0	15	8	0	15	11	10	3	9	D ~~49~~
93	101	30	93	85	0	93	104	30	20	96	M 89
86	100	30	86	93	30	86	104	30	27	96	M 89
92	107	30	92	92	10	92	103	30	23	99	M 89
91	64	0	91	87	10	91	106	30	13	87	D 89
96	105	30	96	81	0	96	97	20	17	95	D 89
29	0	0	29	4	0	29	6	0	0	10	D 49
73	93	30	73	59	0	73	72	10	13	74	M 69
90	94	10	90	99	20	90	81	0	10	91	M 85
53	45	0	53	52	10	53	35	0	3	47	D 65

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8 Algebra

Appendix X cont.

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 4

Quiz: 4-1 4-4			Quiz: 4-5, 4-6, 4-8			Quiz: ch. 4 Test			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
58	81	30	58	56	10	58	64	20	20	65	u 79
79	91	30	79	34	0	79	70	0	10	69	D 79
39	59	30	39	46	20	39	32	0	17	44	u 55
92	101	30	92	66	0	92	88	10	13	87	D 89
43	45	0	43	41	0	43	31	0	0		89
84	104	30	84	48	0	84	72	0	10	77	D 89
91	95	20	91	71	0	91	73	0	7	83	D 89
91	97	20	91	66	0	91	76	0	7	83	D 89
87	84	10	87	65	0	87	67	0	3	76	D 89
40	69	30	40	21	0	40	31	0	10	40	s 55
93	108	30	93	92	10	93	91	10	17	96	u 89
27	0	0	27	0	0	27	46	30	10	18	D 49
18			18			18					
93	93	10	93	91	10	93	107	30	17	96	u 89
44	93	30	44	29	0	44	68	30	20	59	u 59
43	14	0	43	36	0	43	26	0	0	30	D 59
87	100	30	87	53	0	87	83	10	13	81	D 85
69	49	0	69	42	0	69	59	0	0	55	D 72
85	104	30	85	61	0	85	84	10	13	84	D 89

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Appendix X cont.

Improvement Points Chart

Base Score	T & Q Score	T & Q Score	T & Q Score	T & Q Score	T & Q Score	Improve Points	Base Score	T & Q Score	T & Q Score	Language Arts T & Q Score	T & Q Score	P & Q Score	Improve Score
72	82	68	90	90		30	76	46	82	—	75		7.5
79	86	56	90	90		30	81	76	92	51	85		10
79	78	84	95	95		30	85	85	85	74	85		7.5
85	86	72	100	100		30	85	85	64	75	75		2.5
72	66	64	40	40		0	64	0	53	54	65		2.5
79	56	44	75	75		10	65	49	82	53	80		15
82	80	76	80	80		10	75	70	64	64	70		0
85	100	109	100	100		30	88	94	96	88	90		15
89	110	88	95	95		20	93	82	74	79	70		0
79	68	44	45	45		0	58	57	53	72	45		7.5
75	52	100	70	70		0	66	82	82	75	55		20
75	68	52	90	90		30	73	67	46	56	75		2.5
82	90	100	100	100		30	92	70	92	89	80		5
85	102	96	95	95		30	94	91	96	96	75		7.5
75	78	80	90	90		30	84	43	67	69	60		0
72	46	52	65	65		0	63	43	64	53	70		7.5
75	76	76	75	75		10	78	0	78	47	60		2.5
89	90	100	90	90		10	94	94	85	80	85		2.5
72	48	72	70	70		10	65	40	46	52	75		7.5
79	86	84	85	85		20	85	76	89	75	55		2.5
Starting Base Score	Alki-Tiki-Tavi Test	Assistant of Red Chief Test	Secret Service Twin Test	Zoo Test		1st Round Improvement Points	2nd Base Score	Amigo Brothers Test	Stolen Day Test	English Grammar Test	Carlos Bamba Test		2nd Round Improvement Points

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Appendix X cont.

Improvement Points Chart

Language Arts

Base Score	T & Q Score	T & Q Score	T & Q Score	T & Q Score	T & Q Score	Improve Points	Base Score	T & Q Score	T & Q Score	T & Q Score	T & Q Score	T & Q Score	Improve Score
56	1	55				5	37						
78	96	67				15	80						
83	88	55				10	75						
77	88	73				20	79						
47	96	41				15	61						
66	96	58				15	73						
69	92	49				15	70						
91	92	95				10	93						
80	96	79				20	85						
57	68	63				25	63						
72	92	58				15	74						
63	80	56				15	66						
85	92	82				15	86						
90	96	95				20	94						
65	80	68				20	71						
59	68	60				15	62						
53	80	42				15	58						
88	92	77				5	86						
56	96	59				20	70						
76	88	69				15	78						
3rd Base Score	Utzel Test	Capitalization Test				3rd Improvement Points	4th Base Score						

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7 Math
Group I

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 1

Student	Alpha Quiz: Values Base	Quiz	Imp pts	Problem Solving Quiz: Test Base	Quiz	Imp pts	Diamond Quiz: Design Base	Quiz	Imp pts	Imp Pt Average	New Base Score
	85	92	20		78	0		82	10	10	84
	75	72	10		78	10		82	20	13	77
	55	83	30		22	0		0	0	10	40
	85	87	10		81	10		92	20	13	86
	79	88	20		86	20		92	30	23	86
	62	70	20		53	0		72	30	17	64
	79	70	0		75	10		72	0	3	74
	75	70	0		83	20		100	30	17	82
	65	77	30		39	0		86	30	20	67
	69	75	20		50	0		76	20	13	68
	82	98	30		89	20		72	0	17	85
	75	73	10		50	0		76	10	7	69
	75	77	10		83	20		86	30	20	80
	89	98	30		83	0		66	0	10	84
	82	75	0		86	10		89	20	10	83
	85	80	0		81	10		86	10	7	83
	75	87	30		81	20		82	20	23	81
	75	73	10		67	0		86	30	13	75
	75	77	10		77	10		82	20	13	78
	82	93	30		64	0		76	0	10	79
	79	83	10		86	20		92	30	20	85
	75	85	30		86	30		76	10	23	81
	85	85	10		89	10		76	0	7	84
	62	93	30		81	30		89	30	30	81
	72	73	10		31	0		86	30	13	66

9 or more 30 pts
5-9 20 pts
within 10 10 pts

perfect 30 pts
within 5 pts of perfect 20 pts

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7 Math
Group II

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 1

Student	Alpha Quiz: Values Base	Quiz	Imp. pts.	Problem Solving Quiz: Test Base	Quiz	Imp. pts.	Diamond Quiz: Design Base	Quiz	Imp. pts.	Imp. Pt Average	New Base Score
	82	80	10		80	10		76	0	7	80
	72	75	10		74	10		89	30	17	78
	85	88	10		77	0		82	10	7	83
	79	85	20		80	10		72	0	10	79
	82	90	20		86	10		86	10	13	86
	82	91	20		91	20		76	0	13	85
	75	60	0		69	0		72	10	0	69
	75	65	0		81	20		76	10	10	74
	79	60	0		87	20		100	30	17	82
	75	75	10		81	20		76	10	13	77
	79	60	0		36	0		0	0	0	44
	79	88	20		100	30		92	30	27	90
	79	75	10		48	0		82	10	7	71
	59	77	30		13	0		0	0	10	37
	79	37	0		44	0		72	0	0	58
	82	73	0		72	0		92	30	10	82
	82	88	20		81	10		100	30	20	88
	82	60	0		60	0		100	30	10	76
	79	93	30		69	0		82	10	13	81
	65	73	20		41	0		92	30	17	68
	72	76	10		48	0		76	10	7	68
	82	93	30		89	20		100	30	27	91
	89	97	20		88	10		89	10	17	91
	85	86	10		67	0		100	30	13	85
	85	92	20		84	10		89	10	13	88
	82	92	30		97	30		82	10	23	88

9 or more 30pts
5-9 pts 20pts
within 10 pts 10pts

perfect 30pts
within 5pts of perfect 20pts

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7 Math
Group III

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 1

Student	Alpha Quiz: Values Base	Quiz	Imp. pts.	Problem Solving Quiz: Test Base	Quiz	Imp. pts.	Diamond Quiz: Design Base	Quiz	Imp. pts.	Imp. Pt Average	New Base Score
	69	80	30		22	0		66	10	13	54
	82	98	20		81	10		66	0	13	82
	79	88	20		64	0		100	30	17	83
	79	88	20		89	30		72	0	17	82
	65	83	30		30	0		82	30	20	65
	79	93	30		81	10		86	20	20	85
	75	88	30		72	10		72	10	10	77
	89	93	10		99	30		76	0	13	89
	82	98	30		93	30		92	30	27	91
	82	88	20		80	10		100	30	20	88
	79	78	10		82	10		72	0	7	78
	72	78	20		61	0		72	10	10	71
	82	85	10		43	0		72	0	3	71
	85	93	20		79	0		92	20	13	87
	65	83	30		56	0		86	30	20	73
	69	80	30		73	10		89	30	23	78
	72	80	20		53	0		82	30	17	72
	82	78	10		94	30		76	0	13	83
	75	93	30		88	30		86	30	30	86
	82	88	20		92	10		72	0	10	81

9 or more 30pts
5-9 points 20pts
within 10pts 10pts

perfect 30pts
within 5pts of perfect 20pts

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7 Math
Group I

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 2

Student	Chp 2 Sec 2-1 Quiz: to 2-4 Base	Quiz	Imp pts	Chp 2 Sec Quiz: 2-4 to 2-6 Base	Quiz	Circle Graphs Imp pts	Imp: Quiz: pg Base	chp 2 rst Quiz	Imp pts	Imp Pt Average	New Base Score
	84	52	0	65	0	93	20	78	0	5	74
	77	36	0	20	0	52	0	19	0	0	41
	40	0	0	0	0	0	0	Expelled →			
	86	75	0	40	0	73	0	56	0	0	66
	86	44	0	50	0	94	30	70	0	8	70
	64	40	0	30	0	82	30	29	0	8	49
	74	75	10	49	0	76	10	63	0	5	67
	82	44	0	35	0	82	10	49	0	3	58
	67	20	0	20	0	67	10	40	0	3	43
	68	36	0	30	0	51	0	29	0	0	43
	85	93	20	69	0	85	10	73	10	10	81
	69	32	0	30	0	0	0	37	0	0	34
	80	18	0	25	0	79	10	26	0	3	46
	84	71	0	50	0	42	0	79	0	0	65
	83	55	0	50	0	70	0	66	0	0	65
	83	90	20	85	10	92	20	81	10	15	86
	81	84	10	45	0	83	10	70	0	5	73
	75	58	0	45	0	93	30	47	0	8	64
	78	43	0	25	0	91	30	42	10	10	56
	79	44	0	30	0	55	0	51	0	0	52
	85	20	0	20	0	93	20	58	0	5	55
	81	56	0	50	0	73	0	52	0	0	62
	84	32	0	60	0	93	20	92	20	10	72
	81	72	0	55	0	72	0	74	0	0	71
	66	0	0	20	0	76	30	18	0	8	36

9 or more pts 30
5-9 pts 20
within 4 points 10

perfect 30pts
within 5pts of perfect 20 pts

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7 Math
Group II

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 2

Student	Chp 2 Sec 2-1 to 2-4 Quiz: Base	Quiz	Imp pts	Chp 2 Sec 2-1 to 2-4 Quiz: Base	Imp pts Quiz	Circle Graph Imp pts	Chp 2 Test: Base	Quiz	Imp pts	Imp. Pt Average	New Base Score
	80	69	0	35	0	64	0	65	0	0	63
	78	48	0	30	0	64	0	36	0	0	51
	83	50	0	59	0	72	0	57	0	0	64
	79	43	0	35	0	94	30	74	0	8	65
	86	67	0	75	0	39	0	84	10	3	70
	85	76	0	30	0	86	10	72	0	3	70
	69	50	0	46	0	72	10	42	0	3	55
	74	66	0	60	0	90	30	86	30	15	75
	82	80	10	45	0	85	10	72	0	5	73
	77	40	0	30	0	49	0	73	10	3	54
	44	24	0	25	0	90	30	35	0	8	44
	90	84	0	85	0	100	30	88	10	10	89
	71	55	0	25	0	65	0	21	0	0	47
	37	8	0	25	0	83	30	22	0	8	35
	58	52	0	30	0	67	20	74	30	13	56
	80	32	0	50	0	86	20	63	0	5	62
	88	70	0	50	0	92	10	60	0	3	72
	76	66	0	60	0	96	30	79	10	10	75
	81	42	0	55	0	83	10	44	0	3	61
	68	35	0	30	0	0	0	24	0	0	31
	68	40	0	60	0	67	10	66	10	5	60
	91	84	0	70	0	100	30	72	0	8	83
	91	87	10	85	0	100	30	91	10	13	91
	85	48	0	65	0	80	0	73	0	0	70
	88	72	0	70	0	66	0	63	0	0	72
	88	58	0	60	0	70	0	79	0	0	71

9 or more points 30
5-9 points 20
within 10 points 10

perfect 30pts
within 5pts of perfect 20 pts

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7 Math
Group III

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 2

Student	Chp 2 Sec 2-1 to 2-4 Quiz: Base	Quiz	Imp. pts	Chp 2 Sec 2-4 to 2-6 Quiz: Base	Imp Pts Quiz	Circle Graphs Imp. pts.	Imp Quiz: pts Base	Chp 2 Test Quiz	Imp. pts	Imp. Pt Average	New Base Score
	59	44	0	45	0	22	0	32	0	0	40
	82	56	0	25	0	99	30	27	0	8	58
	83	52	0	30	0	79	10	43	0	3	57
	82	52	0	15	0	93	30	55	0	8	59
	65	0	0	10	0	0	0	46	0	0	24
	85	60	0	20	0	91	20	35	0	5	58
	77	43	0	10	0	87	30	32	0	10	50
	89	82	0	60	0	99	30	84	0	8	83
	91	80	0	35	0	100	30	76	0	8	76
	88	48	0	44	0	87	10	63	0	3	66
	78	34	0	25	0	86	20	26	0	5	51
	71	48	0	30	0	66	0	20	0	0	47
	71	91	30	45	0	34	0	72	10	10	63
	87	76	0	65	0	99	30	88	10	10	83
	73	20	0	30	0	87	30	44	0	8	51
	78	57	0	20	0	98	30	26	0	8	56
	72	32	0	25	0	85	30	46	0	8	52
	83	83	10	74	0	98	30	65	0	10	81
	86	57	0	15	0	93	20	36	0	5	57
	81	60	0	50	0	81	10	56	0	3	66

9 or more pts 30
5-9 pts 20
within 10pts 10

perfect 30pts
within 5pts of perfect 20pts

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7 Math
Group I

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 3

Student	Quiz: 10 4-3 Base	Quiz	Imp. pts.	Quiz: 4-5-4-8 Base	Quiz	Imp. pts.	Quiz: Chp 4 Test Base	Quiz	Imp. pts.	Imp. Pt Average	New Base Score
	74	100	30		39	0		74	10	13	72
	41	75	30		6	0		22	0	10	36
		EX	P	E	L	L	E. D				
	66	80	30		17	0		51	0	10	54
	76	90	30		33	0		95	30	20	72
	49	65	30		0	0		12	0	10	32
	67	90	30		17	0		59	0	10	58
	58	70	30		22	0		56	10	13	52
	43	20	0		11	0		20	0	0	24
	43	86	30		17	0		73	30	20	55
	81	100	30		44	0		77	10	13	76
	34	35	10		6	0		24	0	3	25
	46	75	30		6	0		49	10	13	34
	65	84	30		44	0		75	30	20	68
	65	90	30		22	0		64	10	13	60
	86	90	10		78	0		95	20	10	87
	73	90	30		33	0		69	10	13	52
	64	90	30		33	0		47	0	10	54
	56	75	30		11	0		71	30	20	53
	52	84	30		33	0		75	30	20	61
	55	78	30		11	0		10	0	10	39
	62	85	30		11	0		62	10	13	53
	72	82	30		71	10		76	10	17	75
	71	99	30		21	0		71	10	13	64
	36	80	30		6	0		37	10	13	40

More than 9pts 30 pts perfect 30pts
5-9 pts 20 pts within 5pts of perfect 20pts
within 4pts 10 pts

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7 Math
Group II

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 3

Student	Quiz: lo 4-3 Base	Quiz	Imp pts	Quiz: lesson 4-5 Base	Quiz	Imp pts	Quiz: Ch 4 Test Base	Quiz	Imp pts	Imp Pt Average	New Base Score
	63	74	30		17	0		60	10	13	54
	51	40	0		6	0		56	20	7	38
	64	65	10		21	0		64	10	7	54
	65	75	30		28	0		59	0	10	57
	70	75	20		44	0		57	0	7	62
	70	64	0		28	0		60	0	0	56
	55	60	20		22	0		73	30	17	53
	75	85	30		54	0		71	10	13	71
	73	95	30		39	0		59	0	10	67
	54	65	30		33	0		66	30	20	55
	44	50	20		17	0		58	30	17	42
	89	90	10		44	0		68	0	3	73
	47	45	10		11	0		70	30	13	43
	35	75	30		0	0		54	30	20	42
	56	74	30		22	0		58	10	13	53
	62	68	20		22	0		60	10	10	53
	72	69	10		33	0		61	6	3	59
	75	95	30		43	0		74	10	13	72
	61	68	20		17	0		59	10	10	51
	31	85	30		0	0		71	30	20	47
	60	94	30		39	0		52	0	10	61
	83	40	0		22	0		74	10	3	56
	91	99	20		39	0		95	20	13	85
	70	94	30		22	0		59	0	10	68
	72	84	30		39	0		66	0	10	65
	71	99	30		22	0		95	30	20	72

More than 9pts 30 pts perfect 30pts
5-9pts 20 pts within 5pts of perfect 20pts
within 4pts 10pts

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7 Math
Group III

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # 3

Student	Quiz: Lesson 4-1 to 4-3			Quiz: Lesson 4-5 to 4-8			Quiz: Chp 4 Test			Imp. Pt Average	New Base Score
	Base	Quiz	Imp. pts	Base	Quiz	Imp. pts	Base	Quiz	Imp. pts		
	40	0	0		11	0		21	0	0	24
	58	75	30		6	0		24	0	10	41
	57	70	30		22	0		24	0	10	43
	54	64	20		11	0		57	10	10	48
	24	81	30		6	0		35	30	20	37
	58	64	20		11	0		54	10	10	47
	50	59	20		11	0		35	0	7	39
	83	95	30		48	0		74	0	10	75
	76	69	0		39	0		87	30	10	68
	66	30	0		11	0		34	0	0	35
	51	40	0		11	0		64	30	10	43
	47	60	30		11	0		36	0	10	49
	63	55	0		44	0		62	10	3	56
	83	90	20		64	0		87	10	10	82
	51	50	10		0	0		36	0	3	34
	56	64	20		53	10		42	0	10	54
	52	70	30		28	0		65	30	20	54
	81	80	10		67	0		81	10	7	77
	57	35	0		11	0		31	0	0	34
	66	85	30		11	0		32	0	10	49

More than 9pts 30pts
5-9 pts 20pts
within 4pts 10pts

perfect 30pts
within 5pts of perfect 20pts

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7 Science

Group I

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # (1)

Quiz: [redacted]			Quiz: [redacted]			Quiz: [redacted]			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
[redacted]		30	85		0	85		30	20		U
		30	69	85	30	69		0	20		U
		0	65	41	0	65	79	30	10		D
	100	30	75	76	10	75	85	30	23		U
	83	10	79	88	30	79	82	10	17		U
		0	65	55	30	65	76	0	10		D
	95	30	75	100	30	75	88	30	30		U
	90	30	65	58	0	65	88	30	20		U
	85	30	69	56	0	69	69	0	10		—
	93	30	69	76	20	69	36	0	17		—
	98	30	85	91	20	85	100	30	27		U
	80	20	72	48	0	72	91	30	17		U
	75	10	72	88	30	72	67	0	13		U
	100	30	82	88	20	82	97	30	27		U
	85	10	82	94	30	82	103	30	23		U
	95	30	75	97	30	75	85	30	30		U
	100	30	82	81	0	82	76	0	10		U
	100	30	82	84	10	82	85	10	17		U
	70	0	72	64	0	72	97	30	10		U
	70	20	65	55	0	65	79	30	17		U
	90	30	75	79	10	75		30	23		U
	100	30	85	91	20	85		10	20		U
	100	30	79	91	30	79	97	30	30		U
	0	0	72	45	0	72		0	0		D
	100	30	75	87	30	75		30	30		U

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7 Science [redacted]

Appendix X cont.

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # (1)

Quiz:			Quiz:			Quiz:			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
[redacted]	[redacted]	30	79	[redacted]	20	79	[redacted]	10	20	83	U
[redacted]	[redacted]	30	75	[redacted]	0	75	[redacted]	10	18	79	U
[redacted]	[redacted]	30	79	[redacted]	20	79	[redacted]	30	27	87	U
[redacted]	[redacted]	20	79	[redacted]	30	79	[redacted]	10	20	83	U
[redacted]	[redacted]	30	85	[redacted]	0	85	[redacted]	20	17	86	U
[redacted]	[redacted]	20	75	[redacted]	0	75	[redacted]	10	10	76	U
[redacted]	[redacted]	30	80	[redacted]	30	80	[redacted]	30	30	92	U
[redacted]	[redacted]	30	75	[redacted]	0	75	[redacted]	-0	10	76	U
[redacted]	[redacted]	30	75	[redacted]	20	75	[redacted]	20	23	85	U
[redacted]	[redacted]	30	75	[redacted]	30	75	[redacted]	0	20	88	U
[redacted]	[redacted]	10	79	[redacted]	0	79	[redacted]	30	13	81	U
75	0	0	75	[redacted]	30	75	[redacted]	0	10	59	D
[redacted]	[redacted]	30	79	[redacted]	30	79	[redacted]	30	30	89	U
[redacted]	[redacted]	30	75	0	0	75	[redacted]	0	10	54	D
[redacted]	[redacted]	30	69	[redacted]	0	69	[redacted]	10	13	67	D
[redacted]	0	0	79	[redacted]	30	79	[redacted]	30	20	65	D
[redacted]	[redacted]	30	75	[redacted]	20	75	[redacted]	30	27	84	U
[redacted]	[redacted]	30	79	[redacted]	0	79	[redacted]	30	20	67	D
[redacted]	[redacted]	30	75	[redacted]	30	75	[redacted]	10	23	83	U
[redacted]	/	/	72	[redacted]	20	72	/	/	20	77	U
[redacted]	[redacted]	30	65	[redacted]	0	65	[redacted]	0	10	42	D
[redacted]	[redacted]	0	72	[redacted]	0	72	[redacted]	30	10	73	U
[redacted]	[redacted]	20	85	[redacted]	30	85	[redacted]	10	20	89	U
[redacted]	[redacted]	30	89	[redacted]	10	89	[redacted]	30	23	96	U
[redacted]	[redacted]	30	79	[redacted]	30	79	[redacted]	10	23	87	U
[redacted]	[redacted]	30	82	[redacted]	0	82	[redacted]	30	20	87	U

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7 Science
Group III

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # (1)

Quiz:			Quiz:			Quiz:			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
[redacted]	[redacted]	0	65	[redacted]	0	65	[redacted]	30	10	[redacted]	D
[redacted]	[redacted]	30	82	[redacted]	20	82	[redacted]	10	20	[redacted]	U
[redacted]	[redacted]	30	82	[redacted]	20	82	[redacted]	30	27	[redacted]	U
[redacted]	[redacted]	20	82	[redacted]	30	82	[redacted]	30	27	[redacted]	U
[redacted]	[redacted]	30	69	[redacted]	0	69	[redacted]	0	10	[redacted]	D
[redacted]	[redacted]	0	79	[redacted]	20	79	[redacted]	0	7	[redacted]	D
[redacted] K	[redacted]	30	79	[redacted]	30	79	[redacted]	30	30	[redacted]	U —
[redacted] K	[redacted]	30	72	[redacted]	30	72	[redacted]	0	20	[redacted]	U —
[redacted]	[redacted]	20	72	[redacted]	30	72	[redacted]	20	23	[redacted]	U
[redacted]	[redacted]	20	85	[redacted]	30	85	[redacted]	30	27	[redacted]	U
[redacted]	[redacted]	10	85	[redacted]	20	85	[redacted]	30	27	[redacted]	U
[redacted]	[redacted]	30	72	[redacted]	30	72	[redacted]	30	30	[redacted]	U
[redacted]	[redacted]	30	69	[redacted]	30	69	[redacted]	0	20	[redacted]	U
[redacted]	[redacted]	0	[redacted]	[redacted]	0	[redacted]	[redacted]	0	0	[redacted]	D
[redacted]	[redacted]	30	72	[redacted]	10	72	[redacted]	30	23	[redacted]	U
[redacted]	[redacted]	30	85	[redacted]	20	85	[redacted]	20	23	[redacted]	U
[redacted]	[redacted]	30	69	[redacted]	30	69	[redacted]	30	30	[redacted]	U
[redacted]	[redacted]	30	75	[redacted]	10	75	[redacted]	0	13	[redacted]	D
[redacted]	[redacted]	20	75	[redacted]	0	75	[redacted]	0	7	[redacted]	D
[redacted]	[redacted]	30	85	[redacted]	30	85	[redacted]	10	23	[redacted]	U
[redacted]	[redacted]	30	75	[redacted]	0	75	[redacted]	0	10	[redacted]	U
[redacted]	[redacted]	20	82	[redacted]	0	82	[redacted]	0	7	[redacted]	D
[redacted] K	[redacted]	30	72	[redacted]	30	72	[redacted]	30	30	[redacted]	U —

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7 Science
Group I

Appendix X cont.

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # (2)

Quiz:			Quiz:			Quiz:			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
[redacted]	[redacted]	10	87	[redacted]	10	87	[redacted]	30	17	[redacted]	U
[redacted]	[redacted]	0	78	[redacted]	0	78	[redacted]	0	0	[redacted]	D
[redacted]	[redacted]	0	46	[redacted]	0	46	[redacted]	30	10	[redacted]	D
[redacted]	[redacted]	0	84	[redacted]	0	84	[redacted]	0	0	[redacted]	D
[redacted]	[redacted]	0	83	[redacted]	0	83	[redacted]	20	7	[redacted]	D
[redacted]	[redacted]	10	42	[redacted]	10	42	[redacted]	30	17	[redacted]	U
[redacted]	[redacted]	0	90	[redacted]	0	90	[redacted]	0	0	[redacted]	D
[redacted]	[redacted]	0	74	[redacted]	0	74	[redacted]	10	3	[redacted]	D
[redacted]	[redacted]	0	69	[redacted]	30	69	[redacted]	10	13	[redacted]	U
[redacted]	[redacted]	0	69	[redacted]	0	69	[redacted]	20	7	[redacted]	D
[redacted]	[redacted]	0	94	[redacted]	10	94	[redacted]	20	10	[redacted]	U
[redacted]	[redacted]	0	73	[redacted]	20	73	[redacted]	30	17	[redacted]	D
[redacted]	[redacted]	0	76	[redacted]	30	76	[redacted]	30	20	[redacted]	U
[redacted]	[redacted]	0	92	[redacted]	0	92	[redacted]	20	7	[redacted]	D
[redacted]	[redacted]	0	91	[redacted]	0	91	[redacted]	20	7	[redacted]	-
[redacted]	[redacted]	0	88	[redacted]	0	88	[redacted]	0	0	[redacted]	D
[redacted]	[redacted]	10	85	[redacted]	10	85	[redacted]	30	17	[redacted]	U
[redacted]	[redacted]	0	88	[redacted]	0	88	[redacted]	0	0	[redacted]	D
[redacted]	[redacted]	30	74	[redacted]	10	74	[redacted]	0	13	[redacted]	U
[redacted]	[redacted]	0	67	[redacted]	0	67	[redacted]	30	10	[redacted]	D
[redacted]	[redacted]	30	83	[redacted]	10	83	[redacted]	20	20	[redacted]	U
[redacted]	[redacted]	10	90	[redacted]	20	90	[redacted]	10	13	[redacted]	U
[redacted]	[redacted]	0	92	[redacted]	0	92	[redacted]	10	3	[redacted]	D
[redacted]	[redacted]	30	45	[redacted]	30	45	[redacted]	30	30	[redacted]	U
[redacted]	[redacted]	20	88	[redacted]	20	88	[redacted]	10	17	[redacted]	U

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7 Science

Appendix X cont.

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # (2)

Student	Quiz:			Quiz:			Quiz:			Imp. Pt. Average	New Base Score	
	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.			
[redacted]			10	83		0	83		0	3		D
			0	79		10	79		20	10		–
			16	87		0	87		30	13		U
			0	83		10	83		30	13		U
			20	86		0	86		30	17		U
			30	76		30	76		10	23		U
			10	92		0	92		10	3		–
			30	76		0	76		0	10		–
			0	85		0	85		30	10		U
			30	88		0	88		10	13		D
			10	81		0	81		20	7		D
			30	59		30	59		30	30		U
			0	89		0	89		20	7		–
			30	54		30	54		30	30		U
			10	67		0	67		30	13		U
			0	65		30	65		0	10		D
			0	84		0	84		30	10		D
			10	67		30	67		30	23		U
			0	83		0	83		0	0		D
				77		0	77			0		D
			30	62		30	62		30	30		U
			10	73		0	73		10	7		D
			0	89		0	89		20	7		D
			30	96		0	96		30	20		U
			30	87		0	87		30	20		U
			0	87		0	87		20	7		D

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1 Science

Group III

Student Base Score, Quiz/Test Score and Improvement Point Record

Round #(2)

Quiz:			Quiz:			Quiz:			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
[redacted]	[redacted]	0	49	80	30	49	[redacted]	30	20	[redacted]	U
[redacted]	[redacted]	0	89	84	30	89	101	30	20	[redacted]	U
[redacted]	[redacted]	30	84	84	0	84	103	30	20	[redacted]	U
[redacted]	[redacted]	0	89	82	0	89	94	20	7	[redacted]	D
[redacted]	[redacted]	0	66	75	30	66	82	30	20	[redacted]	U
[redacted]	[redacted]	10	59	73	30	59	73	30	23	[redacted]	U
[redacted]	95	10	92	93	10	92	84	0	7	[redacted]	D —
[redacted]	[redacted]	10	85	82	0	85	80	0	3	[redacted]	D —
[redacted]	[redacted]	0	80	81	0	80	83	10	3	[redacted]	D
[redacted]	[redacted]	20	92	91	0	92	103	30	17	[redacted]	U
[redacted]	[redacted]	30	91	94	10	91	99	20	20	[redacted]	U
[redacted]	80	0	86	100	30	86	81	0	10	[redacted]	U
[redacted]	60	0	78	60	0	78	85	20	7	[redacted]	D
[redacted]	53	0	64	0	0	64	84	30	10	[redacted]	D
[redacted]	80	10	79	96	30	79	103	30	23	[redacted]	U
[redacted]	87	0	91	75	0	91	103	30	10	[redacted]	D
[redacted]	92	20	85	70	0	85	86	10	10	[redacted]	D
[redacted]	87	30	73	74	10	73	90	30	23	[redacted]	U
[redacted]	58	0	72	51	0	72	94	30	10	[redacted]	D
[redacted]	93	10	91	86	0	91	103	30	13	[redacted]	U
[redacted]	70	0	76	69	0	76	92	20	7	[redacted]	D
[redacted]	80	10	78	66	0	78	79	0	3	[redacted]	D
[redacted]	95	20	89	91	10	89	88	0	10	[redacted]	U —

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7 Science
Group I

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # (3)

Quiz:			Quiz:			Quiz:			Imp. Pt.	New Base	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Average	Score	
[illegible]	[illegible]	0	90	[illegible]	10	90	[illegible]	0	3	[illegible]	D
[illegible]	[illegible]	30	68	[illegible]	0	68	[illegible]	0	10	[illegible]	-
[illegible]	[illegible]	0	35	/	/	35	[illegible]	/	0	35	-
[illegible]	[illegible]	30	79	[illegible]	0	79	[illegible]	30	20	[illegible]	U
[illegible]	[illegible]	30	78	[illegible]	10	78	[illegible]	10	17	[illegible]	U
[illegible]	[illegible]	30	53	[illegible]	30	53	[illegible]	0	20	[illegible]	D
[illegible]	[illegible]	10	83	[illegible]	0	83	[illegible]	0	3	[illegible]	D
[illegible]	[illegible]	30	58	[illegible]	10	58	[illegible]	30	23	[illegible]	U
[illegible]	[illegible]	30	71	[illegible]	0	71	[illegible]	30	20	[illegible]	U
[illegible]	[illegible]	30	61	[illegible]	0	61	[illegible]	30	20	[illegible]	U
[illegible]	[illegible]	0	96	[illegible]	0	96	[illegible]	0	0	[illegible]	D
[illegible]	[illegible]	20	69	[illegible]	30	69	[illegible]	30	27	[illegible]	U
[illegible]	[illegible]	30	78	[illegible]	0	78	[illegible]	0	10	[illegible]	U
[illegible]	[illegible]	30	89	[illegible]	0	89	[illegible]	0	10	[illegible]	D
[illegible]	[illegible]	0	91	[illegible]	0	91	[illegible]	0	6	[illegible]	D
[illegible]	/	/	81	[illegible]	0	81	[illegible]	10	3	[illegible]	D
[illegible]	[illegible]	30	90	[illegible]	0	90	[illegible]	0	10	[illegible]	D
[illegible]	[illegible]	10	82	[illegible]	0	82	[illegible]	20	10	[illegible]	D
[illegible]	[illegible]	30	78	[illegible]	0	78	[illegible]	0	10	[illegible]	D
[illegible]	[illegible]	30	60	[illegible]	30	60	[illegible]	20	27	[illegible]	U
[illegible]	[illegible]	10	90	[illegible]	0	90	[illegible]	10	7	[illegible]	D
[illegible]	[illegible]	30	93	[illegible]	0	93	[illegible]	0	10	[illegible]	-
[illegible]	[illegible]	30	84	[illegible]	0	84	[illegible]	0	10	[illegible]	U
[illegible]	[illegible]	0	60	[illegible]	0	60	[illegible]	30	10	[illegible]	D
[illegible]	[illegible]	30	91	[illegible]	0	91	[illegible]	0	10	[illegible]	D

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Group II

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # (3)

Quiz:			Quiz:			Quiz:			Imp. Pt. Average	New Base Score	
Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.	Base	Quiz	Imp. pts.			
72	90	30	82	82	0	82	92	10	13	90	D
79	/	/	79	79	0	79	79	0	0	83	D
89	89	0	89	99	10	89	109	20	10	100	U
86	/	/	86	86	0	86	96	10	3	92	D
89	99	10	89	99	10	89	89	0	7	92	U
85	/	/	85	85	0	85	85	0	0	87	D
92	122	30	92	102	10	92	102	10	17	104	U
76	86	10	76	76	0	76	86	10	7	93	D
86	96	10	86	86	0	86	96	10	7	93	U
85	110	20	85	85	0	85	90	0	7	90	D
76	86	10	76	86	10	76	106	30	17	93	U
76	110	30	76	55	0	76	86	0	10	71	D
89	96	10	89	66	0	89	89	0	13	76	D
69	70	10	69	46	0	69	69	0	13	60	D
72	65	0	72	83	30	72	82	30	20	76	U
35	/	/	35	76	30	35	78	30	20	63	U
80	90	30	80	84	10	80	78	0	13	91	U
74	104	30	74	87	0	74	84	10	13	74	U
75	110	30	75	85	0	75	85	10	13	78	U
74	90	20	74	90	0	74	104	30	17	78	U
74	84	20	74	76	0	74	74	0	7	69	D
70	90	20	70	70	0	70	100	30	17	74	U
87	110	30	87	78	0	87	97	20	17	91	U
97	110	30	97	91	0	97	107	10	13	91	U
90	90	0	90	82	0	90	74	0	0	76	D
83	110	30	83	95	10	83	93	20	17	110	U

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1 Science
Group III

Student Base Score, Quiz/Test Score and Improvement Point Record

Round # (3)

Student	Quiz: Base	Quiz: Quiz	Imp. pts.	Quiz: Base	Quiz: Quiz	Imp. pts.	Quiz: Base	Quiz: Quiz	Imp. pts	Imp. Pt. Average	New Base Score	
[redacted]	[redacted]	[redacted]	10	100	[redacted]	10	60	[redacted]	30	17	[redacted]	U
[redacted]	[redacted]	[redacted]	10	93	[redacted]	0	93	[redacted]	0	3	[redacted]	D
[redacted]	[redacted]	[redacted]	0	92	[redacted]	0	92	[redacted]	0	0	[redacted]	D
[redacted]	[redacted]	[redacted]	30	85	[redacted]	0	85	[redacted]	10	13	[redacted]	–
[redacted]	[redacted]	[redacted]	10	72	[redacted]	0	72	[redacted]	0	3	[redacted]	D
[redacted]	[redacted]	[redacted]	0	66	[redacted]	0	66	[redacted]	0	0	[redacted]	D
[redacted]	[redacted]	[redacted]	30	91	[redacted]	10	91	[redacted]	10	17	[redacted]	U —
[redacted]	[redacted]	[redacted]	30	76	[redacted]	30	76	[redacted]	0	20	[redacted]	U —
[redacted]	[redacted]	[redacted]	20	74	[redacted]	0	74	[redacted]	30	17	[redacted]	U
[redacted]	[redacted]	[redacted]	30	97	[redacted]	0	97	[redacted]	0	10	[redacted]	D
[redacted]	[redacted]	[redacted]	30	96	[redacted]	0	96	[redacted]	0	10	[redacted]	–
[redacted]	[redacted]	[redacted]	10	87	[redacted]	0	87	[redacted]	0	3	[redacted]	D
[redacted]	[redacted]	[redacted]	10	71	[redacted]	0	71	[redacted]	30	13	[redacted]	U
[redacted]	[redacted]	[redacted]	30	50	[redacted]	0	50	[redacted]	30	20	[redacted]	U
[redacted]	[redacted]	[redacted]	10	90	[redacted]	0	90	[redacted]	10	7	[redacted]	D
[redacted]	[redacted]	[redacted]	30	89	[redacted]	20	89	[redacted]	0	17	[redacted]	U
[redacted]	[redacted]	[redacted]	30	83	[redacted]	0	83	[redacted]	0	10	[redacted]	D
[redacted]	[redacted]	[redacted]	30	81	[redacted]	0	81	[redacted]	0	10	[redacted]	–
[redacted]	[redacted]	[redacted]	30	69	[redacted]	0	69	[redacted]	10	13	[redacted]	D
[redacted]	[redacted]	[redacted]	30	93	[redacted]	0	93	[redacted]	10	13	[redacted]	D
[redacted]	[redacted]	[redacted]	30	74	[redacted]	0	74	[redacted]	0	10	[redacted]	U
[redacted]	[redacted]	[redacted]	20	75	[redacted]	10	75	[redacted]	20	17	[redacted]	U
[redacted]	[redacted]	[redacted]	30	91	[redacted]	0	91	[redacted]	30	20	[redacted]	U —

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